

**OVERSIGHT OF THE ENVIRONMENTAL PROTECTION
AGENCY'S MANAGEMENT REVIEW OF THE
SUPERFUND PROGRAM**

HEARING
BEFORE THE
SUBCOMMITTEE ON
SUPERFUND, OCEAN, AND WATER PROTECTION
OF THE
COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
ONE HUNDRED FIRST CONGRESS
FIRST SESSION

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THURSDAY, JUNE 15, 1989

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON SUPERFUND,
OCEAN, AND WATER PROTECTION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:33 a.m., in room 406, Dirksen Senate Office Building, Hon. Frank R. Lautenberg (chairman of the subcommittee) presiding.

Present: Senators Lautenberg, Durenberger, Baucus, and Moynihan.

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator LAUTENBERG. We call the Subcommittee on Superfund, Ocean, and Water Protection oversight hearing to order.

Today we are going to be looking at EPA's management review of the Superfund program.

During his confirmation hearings, Bill Reilly responded to some Superfund questions that I posed by announcing his plans to conduct this review. Administrator Reilly's announcement came at a time when this subcommittee was completing its own examination of Superfund.

After five hearings and several years of investigation, Senator Durenberger and I joined in releasing a comprehensive Superfund report in May. I have compared our report to EPA's management review, and while the EPA review does not address all the issues in our report, it addresses many and does so in a very positive way. It seeks to change a history of unaddressed problems of pollution into a future of environmental solutions.

Comparing our report to EPA's shows me that Bill Reilly and I have reached some of the same conclusions. We both recognize the need for tougher enforcement, including not simply settling with but suing polluters. We both recognize that cleanups can be more efficient and consistent. We both endorse strong headquarters oversight of regional cleanup efforts as well as improving technology transfer among regional offices. And we both recognize that it is not speed alone that we are after, but environmentally protective and efficient cleanups.

We both are committed to better community involvement, including improving the Superfund Citizen Grant program. Government cleanup proposals are undermined if the public does not understand or trust them.

We share a commitment to tackling the Superfund manpower and training needs. I have been stressing this issue since 1987, and I am glad to see EPA responding with concrete training and retention programs, including consideration of salary adjustments in high-cost geographic areas. This is something that is being considered of necessity across many departments of government.

Bill Reilly and I both recognize that the public has seen its share of reports, and now it wants its share of cleanups. That is why a key part of this report is its concluding commitment to implement the recommendations of the review.

The final chapter calls for preparing, by September 1, 1989, a complete schedule and implementation plan for these recommendations, and I am glad to see that commitment because that is where, as it is said, the rubber meets the road. I hope that the dialogue created in our own report and in this hearing today will help the agency shape the final implementation plan as well as the master regulations for Superfund, the so-called National Contingency Plan.

While I agree with much of the EPA review, I expect today to ask EPA about some unresolved issues. I would like to get some commitments on such issues as managing contractors, complying with legal deadlines, cleanup standards, the cleanup selection process, and the quality of cleanups in the enforcement program.

Superfund's tasks are great. Public expectations are high. And while the past has not been without discord, it is essential that the Congress and the administration join forces to win the battle against hazardous waste.

I am encouraged by this review and EPA's willingness to reach out to many different perspectives in preparing it. I also appreciate the willingness of EPA staff to discuss, frankly, all of the issues with us as we prepared for this hearing. Open lines of communication between EPA and the Congress as well as the public are essential to making this program work, and I look forward to getting the views of our first panel of witnesses to the EPA review and to hearing Bill Reilly's plans to move the Superfund program forward.

And now I would like to call to the witness table Mr. Hembra, Mr. Fortuna, Mr. Strait, and Mr. Gleason.

Since this is an oversight hearing, I am going to ask you to raise your right hand and ask you to take the oath.

[Witnesses sworn.]

Senator LAUTENBERG. Thank you very much.

The rules of the committee that we try not to violate are that, despite the fact that each of you, I know, has worked hard to prepare a lot of information, we just do not have time to hear the full testimony, so we ask you to summarize in a five-minute period, and the record will contain your full statement.

Mr. Hembra, we ask you to introduce yourself and your title and give your five-minute summary.

STATEMENT OF RICHARD L. HEMBRA, DIRECTOR, ENVIRONMENTAL PROTECTION ISSUES, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION, GENERAL ACCOUNTING OFFICE

Mr. HEMBRA. Thank you, Mr. Chairman.

My name is Richard L. Hembra. I am Director for Environmental Protection Issues at the U.S. General Accounting Office.

I appreciate the opportunity to present GAO's views on EPA's management report on Superfund.

Our work has shown that the Nation has not been getting a fair return on its large investment in Superfund. The \$10 billion program has accomplished few major cleanups despite nearly a decade-long history and the obligation of \$4.5 billion.

Of the approximate 1,200 sites on or proposed for the NPL, cleanups have been completed in only 41 sites and begun at another 204. These figures are even more startling when you consider that the seriousness of contamination at several hundred thousand more potential hazardous waste sites may need to be assessed.

Over the last few years, our work has identified management and operational problems that we feel have impaired Superfund's effectiveness. Specifically, we have questioned whether EPA has done all that it could to get the most from its contracting dollars, maintain a stable and competent work force, compel parties that contaminate to pay for their cleanup, and give Superfund the management structure and leadership to make it effective.

In our view, EPA's report appears to have taken an honest look at the program. Although some issues have not been dealt with directly, we believe the report can serve as the impetus for significant management improvements to Superfund. What remains to be done is the development of an implementation plan which includes goals, priorities, and milestones for achieving the report's recommended actions. Even more importantly, strong leadership, management commitment, and followup will be needed to effectively implement those recommendations and keep the program on a proper course.

Let me briefly focus on those segments of EPA's report that specifically relate to some of our prior Superfund work. In the contracting area, we have reported weaknesses in EPA's efforts to prevent conflicts of interest. EPA has recognized these weaknesses and has made several recommendations requiring additional procedures for detecting and avoiding conflicts of interest and providing needed guidance for contractors.

However, we continue to be concerned about other contracting weaknesses, primarily in the area of cost control. In an earlier draft of its management report, EPA recognized the need for improvements in this area, but its final report does not contain specific recommendations. We believe greater emphasis on contract management, such as controlling contractor cost, should be included in EPA's agenda because of the large dollar amounts at stake, some \$750 million in fiscal year 1989.

EPA's report addresses two other issues we identified in our reports: a capable work force and a strong enforcement program. Its report recommends several actions to retain staff, including pay in-

creases and other incentives such as more flexible leave policies and retention bonuses. However, we remain concerned that EPA does not have an objective basis for determining whether it has sufficient resources and whether these resources are being used effectively.

In the enforcement area, EPA's report contains a number of recommendations that we endorse, including increasing the use of administrative orders, more aggressive action to obtain information from responsible parties, and improvements in cost recovery. EPA's report does not, however, address statutory deadlines and a comprehensive management information system.

We believe that EPA must commit to meeting the deadlines Congress established for the Superfund program. EPA should improve the tracking of progress on its 1978 deadlines and notify the Congress when slippages occur.

In addition, Superfund information systems are not providing accurate information on the program. For example, they do not contain all known sites that States have identified as potentially requiring cleanup, much less the hundreds of thousands of sites we have reported as perhaps needing to be assessed. Nor do the systems provide full cost recovery information. Improvements must be made to these systems if EPA is to have adequate information on which to base its program goals and make informed decisions.

Any discussion of goals must also focus on the allocation of resources. EPA has recognized, particularly in the enforcement and remedial areas, that additional resources will be needed to improve the program. EPA does not plan to request additional funds, but rather to reassign its funds, for example, from contractors to full-time employees.

We support EPA's efforts to implement its recommendations within existing budget limitations if possible and believe that EPA should work with the Congress to determine the nature of and priorities for those reprogrammed resources.

Beyond specific program fixes, EPA must have a realistic implementation plan and strong leadership if the Administrator's report is to achieve its intended results. The size of the program, which costs almost as much as all of EPA's operating programs combined, requires this kind of effort, as does the persistence of problems that have plagued it, due in no small part to the complexity of the program itself.

EPA's report does not, however, deal extensively with an organizational structure for Superfund, though in order to be sure that top management's attention is spotlighted on the program, some change may be appropriate. Superfund currently resides in an office that handles several other major environmental efforts, including the RCRA program and underground storage tanks, that, I might add, we reported have had their own significant and unique problems.

In addition, Superfund was initially expected to be a short-term cleanup program, but it has grown significantly. It is now recognized to be a long-term commitment that will last well into the 21st century. With so much of EPA's resources spent on Superfund and so many changes looming, perhaps a separate assistant admin-

istrator for Superfund is needed. EPA and the Congress may want to consider the advantages of such a position.

In conclusion, we are hopeful that EPA's fresh look at Superfund will result in a better program to clean up the Nation's hazardous waste sites. However, insightful reports such as this are sometimes shelved and do not always result in needed change. Therefore, we remain cautious of the ultimate outcome of this report until EPA, at a minimum, completes an implementation plan with priorities, milestones, and follow-up.

We would also stress that the ultimate success of these efforts will require a commitment from top management as well as at the staff level and may require some organizational restructuring to create the strong leadership necessary to bring about the needed changes.

Mr. Chairman, we stand ready to assist the subcommittee in its continuing oversight of Superfund as EPA implements the recommendations in its recent report.

This concludes my prepared statement. I will be glad to respond to any questions.

Senator LAUTENBERG. Thank you very much, Mr. Hembra, for your statement.

Senator Durenberger, we have discussed for just a few minutes now the report and EPA's review of that report and, frankly, their willingness to examine the past as well as their intention to prepare for the future, just to give you that background. I invite you now to make an opening statement if you would like to make one.

**OPENING STATEMENT OF HON. DAVE DURENBERGER, U.S.
SENATOR FROM THE STATE OF MINNESOTA**

Senator DURENBERGER. Mr. Chairman, I am going to submit a statement for the record and I have just a few brief remarks.

Senator LAUTENBERG. Without objection.

Senator DURENBERGER. My compliments to you and the subcommittee and the staff in this work. Particular compliments to the Administrator of the Environmental Protection Agency for his commitment.

I will just point out the three points that struck me in the report which I guess make this hearing important. First is that we need to give the people on the front line the support that they need—and I think we are going to hear about that from this panel—training, compensation, guidance, direction, and so forth.

The second is the better use of the powerful enforcement tools that are available, particularly where you have a responsible party who is recalcitrant. We just need to do a better job of that.

And, third, the involvement of people who live in the vicinity of the sites. I think this is something that those of us who have State agencies with comparable and relative responsibilities have all learned: Give the people that you employ the tools that they need, get the folks in the area involved, and then, when you have tools to use on responsible parties, use those tools. I hope we would try to keep that kind of framework in mind as we look at the Administrator's report.

[Senator Durenberger's statement follows:]

OPENING STATEMENT OF HON. DAVE DURENBERGER, U.S. SENATOR
FROM THE STATE OF MINNESOTA

Yesterday, EPA released a management review of the Superfund program which sets out a cleanup strategy for the Bush Administration. Taken as a whole this is an excellent report. It frankly acknowledges the problems that have been experienced in Superfund and makes realistic suggestions for responding to them.

There have been several other reports on the program over the past two months. The Office of Technology Assessment has described problems with contractors in the program. Clean Sites, a private sector group that facilitates cleanups, has suggested that stronger enforcement against recalcitrant polluters is necessary. The Committee for Economic Development, a business group in New York, has recently looked at cleanup standards and strict liability.

I joined with Senator Lautenberg who chairs the Senate Superfund Committee in our own report on the program which was released last month. It made 43 recommendations for strengthening the program. And I am pleased to say that the EPA 90-day review published today is in the same spirit and covers much of the same ground.

There are three strong themes in this report. First, we need to give the people on the frontline of Superfund, the government employees, who manage the site cleanups, more support. They need more training, better compensation and more guidance and assistance in carrying out their task.

Second, EPA needs to make more use of the powerful enforcement tools in Superfund to get recalcitrant industries to pay to clean up the pollution they have created. Superfund includes spending from a government trust fund for so-called orphan sites where there is no solvent party who can pay for cleanup. But enforcement must be used where responsible parties can be found.

Third, we need to increase the involvement of citizens who live near sites in the decisions on cleanup plans and schedules.

Superfund is a sound program that can work, if it is led by people committed to its goals. Bill Reilly gives every indication in this report that he has that commitment and his strategy is an excellent blueprint for carrying out the law.

Senator LAUTENBERG. Thank you very much, Senator Durenberger. I know you have a meeting to go to, but we will be here for a while and invite you back if you can find the time.

I am pleased that we are joined by my distinguished colleague, Senator Baucus, chairman of the Environmental Protection Subcommittee.

Senator Baucus.

Senator BAUCUS. I thank the chairman. I have no statement.

Senator LAUTENBERG. Thank you very much.

I would ask Mr. Fortuna now if you would give your statement.

STATEMENT OF RICHARD C. FORTUNA, EXECUTIVE DIRECTOR,
HAZARDOUS WASTE TREATMENT COUNCIL

Mr. FORTUNA. Thank you, Senator.

My name is Richard C. Fortuna. I am Executive Director of the Hazardous Waste Treatment Council.

The Council is the largest association of technology-based management firms in the country. We are a group of firms committed to the proper and preventive management of hazardous waste and the permanent cleanup of Superfund sites.

My testimony this morning will focus on the preliminary results of our second annual review of the Superfund records of decision for fiscal year 1988. In addition, we will critique and comment on EPA's management review and relate these two studies to the pending National Contingency Plan amendments.

Our annual ROD review is being conducted in conjunction with six of the Nation's leading environmental groups. I am pleased to

be accompanied this morning by Mr. Don Strait, a staff attorney from the Toxics Project of the Natural Resources Defense Council, whose testimony this morning will focus on the enforcement, deferral policy, and cleanup standards aspects of our report. My testimony this morning will focus on the remedy selection process and the statute's emphasis on permanent remedy.

Just to step back for a second, I think if there is a word that captures or summarizes the essence of the Superfund program over the past 12 to 18 months, that word would be "adversity." There is no other program that I know of that has endured so much examination, critical and otherwise, as Superfund.

However, it has been said of adversity that adversity results in one of two things: It brings out the best in people or it brings out the worst in people. And I think to this point that adversity has resulted in bringing out the worst in the program, a series of defensive excuses that failed to resolve or speak to the real problems of the program.

Today, however, I am pleased to observe that, as a result of our examination of the fiscal year 1988 RODs and our critique of the EPA management review, I think better days lie ahead for the Superfund program. I would like to briefly summarize the basis for this optimism as well as the significant concerns that remain regarding Superfund implementation.

Based on our review of the 150 RODs that were signed in fiscal year 1988, we see an increase in the use of treatment technologies at Superfund sites significantly over last year. Fifty-two percent involve the use of treatment technologies either in whole or in part during fiscal year 1988. That compares with only 32 percent during fiscal year 1987.

In addition, overall, the quality of the RODs is much better, and the factors considered reflect many more of the statutory directives than they did in previous years.

In addition, the basis for optimism on the 90-day review is the fact that, frankly, the 90-day review reflects many of the criticisms that have been levied by GAO, OTA, and ourselves in the past. It reflects the fact that we have to develop a strategy that focuses on the worst parts of the worst site first.

It acknowledges the need to increase the use of treatment to achieve permanent remedies, the need to increase the use of treatability testing. We cannot be making decisions based in a vacuum. We have to do prior testing of requisite technologies to develop proper and cost-effective remedies. It also makes a number of managerial improvements to the program to coordinate information.

Our remaining concerns based on our ROD review are the fact that, frankly, all too many sites still involve mere capping and containment. We have the B. F. Goodrich site in Kentucky and the Yaworski Lagoon site in Connecticut, both of which are highly contaminated lagoons of organic material, both of which were readily amenable to any number of treatment technologies, both of which received nothing but minor excavation, capping, and containment. The Yaworski Lagoon site, in addition, is located on a flood plain directly on a river bank.

Costs again remain the controlling factor, we still see, in the decisions regarding remedy selection. And, indeed, many of the tech-

nologies selected are ones that the agency's site program itself has rejected as being ineffective, namely organic stabilization.

In addition, cost estimates for treatment technologies remain exorbitantly inaccurate. The cost estimates for incineration, in particular, are typically three to four times that of what the market will currently provide. I have appended to my testimony a summary of the cleanup at the Prentiss Superfund creosote site in Mississippi, which reveals the fact that on-site incineration was conducted for \$199 ton, approximately four times less than the typical estimate for EPA sites.

I will reserve the remaining concerns that were found in the 90-day review for the question-and-answer session because I think it is important to observe that while we are optimistic based on the trends we see in remedy selection and the EPA's management review, frankly, there is one other fundamental piece that has to be added to the puzzle; that is, the National Contingency Plan.

Many, many of the hopes and aspirations we have for the program and the hope we have based on the management review are really contingent upon the agency adhering to and acknowledging many of the criticisms raised in the Lautenberg-Durenberger report regarding the National Contingency Plan. Unless and until the NCP reflects this committee's recommendation regarding the appropriate role of costs, the way in which permanence is achieved, and the use of ARARs or other applicable relevant standards as a basis for cleanup standards, all of the hope and optimism that we have here will be dashed.

Mr. Chairman, I thank you very much for the opportunity to testify this morning, and I look forward to responding to your questions.

Senator LAUTENBERG. Thank you very much, Mr. Fortuna.

Next we will hear from Mr. Strait.

STATEMENT OF DONALD S. STRAIT, STAFF ATTORNEY, TOXICS PROJECT, NATURAL RESOURCES DEFENSE COUNCIL, INC.

Mr. STRAIT. Good morning. My name is Donald Strait. I am a staff attorney with the Toxics Project at the Natural Resources Defense Council.

I am pleased to testify this morning concerning EPA's management review of the Superfund program. We have testified before concerning Superfund issues, particularly enforcement, and I must say that the report that we have recently reviewed and has recently been concluded is a welcome change from EPA's past responses to our criticisms. It has a good deal of honest self-criticism.

EPA took part in open debate in preparing the report, and there are many good, strong recommendations in the report. Of course, those recommendations must be implemented before they have any value, and EPA, of course, needs the resources to implement them. But we are glad to see the report.

I would like to talk about a few important points in the report, but first I would like to mention something which is not discussed in the report, which is the agency's outstanding deferral proposal, which is a policy which would defer or refuse to list sites on the

National Priorities List where they can be arguably remedied under other programs.

We think that this proposal is a huge mistake, that it would be illegal, and that it could result in a black eye for the agency if the public perceives, a few years down the road, that EPA has abandoned a number of sites to programs that are clearly inadequate to clean up Superfund sites.

I would like to clarify a misimpression that I believe is reflected in the report and perhaps elsewhere that the public desires swift cleanups, sometimes at the expense of quality cleanups. The environmental community believes strongly that quality is the most important goal for the Superfund program. Our central criticism is that we have not seen quality cleanups so far.

With regard to enforcement, the report reaches a number of important conclusions about the enforcement program. We have had many criticisms in the past, and the report prepared by Senators Lautenberg and Durenberger contains some good statistics showing that the enforcement program has not improved.

We agree with the recommendations that the agency should use its enforcement powers more strongly, but we do have a concern about an inherent problem that will remain in the enforcement program, which is that private parties who are responsible for cleanups are performing the remedial studies at sites. We think that this is an inherent conflict of interest, and our preliminary studies indicate that remedies at sites where parties performed the remedial studies are less likely to involve permanent treatment of the source of pollution. Our preliminary statistics show that at 38 percent of the sites where responsible parties preferred the remedial investigation/feasibility study, permanent treatment was chosen, as opposed to 61 percent for sites where EPA performed the studies.

I would like to comment briefly on the report's recommendations with regard to community relations. The report addresses many of the concerns of community groups across the Nation and would go a long way toward remedying many of the problems of the public's feeling shut out of the program.

However, we do feel that there is one looming issue that is not addressed in the report, and that issue is EPA's criteria for evaluating competing applications for technical assistance grants at Superfund sites. We feel that those criteria may stress sophistication over health effects so that a site group that is well funded and very sophisticated but is actually not affected by the health threats of the site may be more likely to get a TAG grant than a group that is actually affected by the health effects at the site but is not as sophisticated and cannot present as slick an application.

We feel that this may be at the root of recent allegations that a community group in Arkansas that was actually threatened by a site was denied a technical assistance grant in favor of a community group which was actually not seriously threatened by the site, was very well funded, and may have been actually a front for the responsible parties at the site. These are the allegations. I am not aware of all of the details of this problem, but we feel that this is an important issue, the TAG grant criteria, and it must be addressed by EPA to get the program on the right track.

It is clear, secondly, that EPA has a need for additional resources. HWAC, through a resolution of its board of directors, has urged the administration and the Congress to continue to increase EPA funding so that it can continue to accomplish the mandates of Superfund in an environmentally effective and cost-efficient manner.

I note in the press conference that Administrator Reilly gave yesterday, he noted that he would reprogram funds and hire an additional 500 personnel in the enforcement program. We believe that there is a similar need in the technical and program side of the program, so that when our companies sit down at the table to negotiate and carry out these programs with EPA, we have facing us experienced personnel in engineering and construction who have a long-term career commitment to the program, and we would hope that these needs would be addressed along with the enforcement needs.

Thirdly, I would say that the principal problem facing the program is the technical challenge in the remedial process which is carried out amid great uncertainties as to what is actually on a site. Our companies who are experienced in this area have suggested an approach which we call the observational method to remediation, which would allow for changes to be made as the process of remediation goes forward and to plan for contingencies.

One of the problems now is that you are locked into a program and a plan which, when you get on the site, may not really reflect the conditions on that site, and we think a new approach like this would be helpful.

Finally, I want to address the conflict-of-interest issue which Mr. Hembra raised and which is touched on in the report. We believe that the law and the regulations needed to avoid conflicts of interest are already in place. Clear guidance obviously would be helpful to the contractors and to the EPA on what constitutes conflicts of interest. I would note that the GAO report did not find conflicts to be pervasive; in fact very few were cited. Rather, they emphasized the need for more and clearer guidance, and we agree with that point.

Thank you, Mr. Chairman. I will return the rest of time to the committee.

Senator LAUTENBERG. Thank you very much, Mr. Gleason.

We thank each one of you for your statements. I would like to ask a few questions here.

Mr. Hembra, in December of 1988, GAO issued a report on EPA compliance with the Superfund's mandated deadlines. Now, the Lautenberg-Durenberger report followed up on this issue, and I wanted to ask you, do you believe that EPA's review adequately addresses the problem of non-compliance with the deadlines?

Mr. HEMBRA. I would say the version of the report we looked at just superficially addressed the issue of the SARA deadlines. We know that EPA has a much better handle on what the deadlines are, but I would have to say that there was a point in time when we did our work when EPA did not even know all the deadlines that were imposed on the agency.

But we feel that the agency still needs to do a better job to improve its tracking system, to make sure that it knows how it is

moving toward meeting those deadlines, and that, when there are problems in doing so, that information is made available. We have to keep in mind that it was Congress that imposed the deadlines, and I think that there is an obligation on the part of the agency to keep the oversight committees apprised when there are going to be variations from those deadlines.

Senator LAUTENBERG. It was quite a debate that we had in the fall of 1986 when we discussed deadlines, and there was a difference of view on whether or not deadlines could be met. We finally arrived at what I will call a compromise schedule.

Is there any way to quantify the number of those that were missed or in any way to grade the conformity to the schedule that is required in the law?

Mr. HEMBRA. Well, I think there were a number of deadlines that EPA had either missed by a substantial time period or it appeared as if they were going to have some problems working toward them. I think, that aside, what I am trying to say now is, I believe that EPA does have a handle on what the deadlines are, and it is just a question of building into this implementation plan that EPA is targeting to have ready by September 1 off their Superfund report the set of goals and the milestones for getting back on track with those deadlines and/or sitting down with the Congress in those cases where they are going to have some problems, either because of resource problems with the agency, and working out some type of compromise.

I think the obvious deadline that a lot of people point out as being missed and having potential impact on the public health and environment is the issuance of the contingency plan.

Senator LAUTENBERG. In our report, we noted that about 65 percent of the deadlines were missed as of March 31, 1989, and I was wondering whether or not that agrees with your report.

Mr. HEMBRA. Our report confirms that; 65 percent is a good figure.

Senator LAUTENBERG. Mr. Strait, what impact have the missed deadlines had on our environmental objectives, our goals?

Mr. STRAIT. The most important missed deadline, as Mr. Hembra mentioned, is the issuance of the revisions to the National Contingency Plan, which were due to be promulgated by April 17, 1988, and were to implement the SARA amendments of 1986. The SARA amendments are crucial to proper implementation of Superfund because they contain strict environmental standards for cleanup of Superfund sites.

The National Contingency Plan revisions would give clear guidance to all the regions, all of the site managers, as to how Superfund cleanups are to be operated. Unfortunately, because the National Contingency Plan has not been issued yet and the agency is predicting issuance in late January or early February of 1990, there will be no such guidance until that time.

Senator LAUTENBERG. They are predicting; I think it is ordered, is it not?

Mr. STRAIT. It is also a court order.

Senator LAUTENBERG. That is a pretty good prediction.

Talking about missed deadlines, that is perhaps the most crucial one.

Mr. STRAIT. I agree.

Senator LAUTENBERG. Mr. Hembra, over the last several years, GAO has issued reports examining EPA's contracting practices and procedures. How well does the EPA review address these contractor management issues?

Mr. HEMBRA. Well, I think, as I mentioned in the testimony, that EPA has done a fine job in addressing and structuring some recommendations to get at conflict of interest which we believe is crucial if for no other reason than because, in the future, with their going with the area-wide remedial contract strategy, that you are going to find more contractors involved. But we think they have done a pretty good job.

I think where they have fallen short—and, to be very honest, we are not sure why attention has not been given to that in the EPA's report—is in the cost control area. We have been very much concerned especially with the REM contracts, those contractors that are heavily involved in the remedial investigation and feasibility study phase, that these are cost-plus-award-fee contracts and that we had seen a number of problems, specifically where there has been inadequate contractor performance, but the contractors still were being awarded for very good performance.

I think we have made a number of recommendations to get at improvements that EPA could make in the contracting process as well as its oversight, and we believe that with the additional contracts that are going to be awarded, that the oversight on the part of EPA is even more critical than it has ever been.

Senator LAUTENBERG. Mr. Gleason, your statement supports EPA staff and budget increases. Do you have specific areas that you would like to see these increases applied to?

Mr. GLEASON. Yes, Mr. Chairman. I believe that, as I have mentioned, the EPA has recognized a need to increase their enforcement resources. Once you go about getting the PRPs on the job, and once you have the Superfund contractors on the job, the most important thing is getting the job done, and that requires people in the contractor organizations, whether they are working for EPA or PRPs, to have across the table from them people who are experienced and knowledgeable in the engineering and environmental and construction disciplines who will be there long enough, who have an incentive to stay with that career for long enough to see the job through, and it is in that area which we believe that the agency needs to beef up its resources.

The people who are there are working long hours, they are overworked, they need more resources in the technical, scientific, engineering, construction, administration areas in addition to the enforcement areas. If they want to get the job done, they need good people on both sides of the table.

Senator LAUTENBERG. Let me ask you this, then. It seems that everyone is agreed that EPA needs additional resources, perhaps with disagreement by OMB, but other than that, lots of us agree that they need additional resources. What is the responsibility of the contracting community to police themselves, to give, let me say, an honest count, to make sure that the taxpayer dollars are appropriately spent?

I come out of the commercial world. I ran a corporation before I came to the Senate. We were always very careful about our contractors. We also knew that some were more reliable than others. Sometimes there was a little extra rate paid for that reliability factor, but in the long run we found that we saved money.

We have had problems in the contracting community, as I am sure you will agree, as well, and I just would like you to tell me what you think the contractor's obligation is. Is it to do only that which is surveyed, monitored, or do they have an obligation to perform like any other contractor or any other supplier to the job specifications?

I wonder why it is that we seem to be having problems. Is it the newness of the field? Is it the inexperience as well in the contractor community as in the government community that creates some of these problems?

Mr. GLEASON. Well, Mr. Chairman, I think you reveal your deep knowledge of all of those problems in asking the question. Certainly all of those things contribute to it, but as a businessman, I think you understand that the contracting process, in a sense, is a self-policing one because contractors who perform shoddy work, who are over cost, who do not do their work on time, do not get invited back. So there really is a self-policing incentive on the part of the contractors to do quality work. I think the contractors do do quality work.

I think one of the problems that we are concerned with here is the newness of the field. Until just within this last decade, we have created an entirely new area of engineering and science. We have created a new industry, a new technology, and there clearly have been, in the early years of the program, some shakedown problems. Those problems are largely behind us, and as GAO, Mr. Hembra, has indicated, EPA is long way toward solving those problems and doing a better job in the future, as are the contractors. So I believe that it is those factors.

But I think, principally, the thing that you focused on in your opening statement is one of the root causes of some of the perceived inefficiencies in this program. There simply is not a resource base of talent available either to EPA or to the contractors which will be sufficient as we go forward to do all of these things. There is a real need for an additional commitment of resources into the field, and frankly, at this point, I don't know where they are going to come from.

I think that is a constraint on EPA's ability to start new construction jobs; it is a constraint on the contractors to reply to requests for proposals. Unless we solve this root-cause problem, all of the enforcement in the world is not going to result in effective cleanups. I really think we have to focus on that.

Senator LAUTENBERG. So what you are really saying is that we are paying for the learning experience all around. I would have to believe that more resources have got to be committed by EPA, especially in view of what you have just said, the fact that there is lack of skills out there in the contracting community, in the community generally—these are problems relatively not new to creation but new to solution—and that we have got to have ever tougher enforcement by EPA as we look at the capability of the

contractor community to do the job and to make the decisions within the agency and within government as to how much we are willing to spend for the learning curve.

It is discouraging, frankly, but I believe that yours is an accurate portrayal of the fact that we are going through this process of familiarization. I look forward to asking the question of the Administrator when he comes to the table.

Bill Reilly inherited an agency that has a terrific mission but because of funding confusion and lack of serious commitment before now, I think, there were serious problems. We have discussed this so many times here, and as a consequence, when they have to get out and do the supervision, do the enforcement, they have people who do not really know what the job is, and they are learning as they do it. We will be focusing on that.

Mr. Fortuna, late last year the previous administration issued proposed revisions to the Superfund master regulation, the National Contingency Plan. Your organization raised objections to that proposal and to some of the cleanup practices reflected in the proposal. Would you summarize the major problems that you have with the proposal as well as current EPA approaches to cleanups?

Mr. FORTUNA. I will be happy to, Mr. Chairman.

I think it is important to view the National Contingency Plan in relation to the EPA management review. We see a lot of good things, a lot of recommendations that are long overdue coming out of the management review, things that give us a basis for optimism.

But I do not think we should lose sight of the ball here. The engine of this program is the National Contingency Plan. That is the basis by which we set policy, by which remedies are selected, by which cleanup standards are set, and by which we determine the role of cost.

Frankly, if we do not make the requisite changes to the NCP that you and Senator Durenberger have recommended, that we in the environmental groups have recommended, and just look at the 90-day review, we are basically looking at a refurbished T-bird without an engine. We need to have those fundamental changes to the NCP that make the program work.

I guess what troubles us the most, our group in particular, is the way in which the agency continues to view the factors that the agency must consider as inherently conflicting, the fact that costs have to be considered and there is still a directive to achieve permanence; the fact that ARARs, or applicable relevant standards from existing environmental statutes, that serve as the basis for cleanup standards are seen as inherently conflicting with costs; or that the NCP and the Nation's policy appear to view them as irreconcilable issues, and that simply is not the case.

We have suggested, both last year and again this year, that the agency does not need to view this program as an all-or-none approach. It is not just one technology or one approach fencepost to fencepost, and it does not all have to be done yesterday. I think there is a recognition that these cleanups are going to take a longer period of time and that we need a range of approaches and technologies and not just put all our eggs in one basket.

Just to amplify a little bit further, we think what the agency should adopt what we call a principal threat strategy, which is, as the management review says, attack the worst parts of the worst site at the earliest possible time, using those technologies that achieve ARARs, that can achieve the protective standards of existing environmental statutes. That technology or that approach is applied to the principal threat.

Virtually every site that we have looked at, the 200-some-odd sites that we have reviewed, have a principal threat—a pit, a pond, a lagoon, a pile of some sort—the principal source of release. That has to be the principal focus of the principal threat strategy, the one which we apply our best technology to at the earliest possible time frame.

Where we run into problems is then what do we do with the balance of the site, the lesser levels of contamination that create the large volumes of low-level contaminated soil, the groundwater that needs remediation for many years, et cetera? I think that is when we can begin instituting mixes of technologies, perhaps complementing, say, incineration with a longer term biotreatment remedy over time that is less costly, that deals with the lower-level-contaminated part of the site, maybe even look at it in conjunction with containment so that perhaps, coming back to the site after five to ten years, you could say that this combination of capping, long-term treatment, and intensive treatment collectively constitute remedy. So that is the way, I think, in which we reconcile the cost, permanency, and cleanup directives of the statute.

Senator LAUTENBERG. Mr. Strait, do you have a comment that you would like to make?

Mr. STRAIT. Yes. I do agree with Mr. Fortuna's assessment of the correct way to go about Superfund cleanups. I would also like to add that stringent standards are the backbone of the Superfund program, or at least should be the backbone of the Superfund program.

The SARA amendments, which were passed in 1986, require that all applicable or relevant and appropriate environmental standards passed under other laws apply to Superfund sites. To our dismay, however, instead of applying the specific standards at sites, EPA is generally performing ad hoc decisionmaking and risk assessment at sites and making individualized determinations instead of nationally consistent determinations.

Permanence is also an important component of the SARA amendments, and it requires the use of technologies to the maximum extent feasible or practicable where those technologies achieve permanent reductions of toxicity or mobility or toxicants at sites. We are finding, particularly at sites where private parties take the lead in conducting studies, that permanent standards are not being used to the maximum extent that they could be. We see this as a serious problem in the program, and until the applicable standards and permanent treatment requirements are followed, we feel that the cleanups do not comply with the law.

Senator LAUTENBERG. Mr. Fortuna, in your written statement you raise a question about the EPA review's approach to achieving consistency in cleanups. What are your concerns about that?

Mr. FORTUNA. As I say, we are generally encouraged by the management review, but there are still some rather significant outstanding problems and approaches that raise concerns.

The agency makes the statement that they cannot review every ROD, they cannot achieve a consistent cleanup level; every site is different, essentially, focusing on the differences between and among sites.

I find it very troubling that the agency views consistency again as something that is in inherent conflict with the goals of the program. I think, if anything, that the goal has to be to try to achieve a consistent approach to these sites. That can only be done by having a common starting point, the applicable and relevant cleanup standards from existing environmental statutes, and then using the statutory scheme of selectively and appropriately invoking the waiver, as opposed to just, as Mr. Strait said, using an ad hoc approach and just basically plucking a cleanup level out of the air.

It is a real concern when I read that the agency says that they cannot even spend the time to do what the OTA, ourselves, the GAO, and other people do in reviewing the records of decisions to ensure that there is at least some consistency, to do a red-flag review, if you will, to make sure that one region is not particularly off the Richter scale, to make sure that a particular decision does not truly conflict with the permanent remedy and the cleanup directives of the statutes.

For the agency to come out and say that we simply cannot do that, I just do not buy that. We not only need more people in enforcement; we need more people in-house to conduct oversight. The real problem, to the extent there has been a problem with contractors, which I think the GAO and OTA have pointed out, is that we have had contractors overseeing contractors. We need to have agency people overseeing contractors.

We need the private-sector, obviously, but we have to have trained people inside the agency overseeing this process, and that includes the very types of things that we, NRDC, and other people are doing to make sure that the goals of the statute are achieved and we are not going off the Richter scale in the various regions or cleanups.

Senator LAUTENBERG. On that point, I want to say that, regardless of the impediments, the contractor sector has an obligation to do an honest day's work, to give us what we contracted for. EPA has the obligation—the auditor, if you will, the contract letter-giver, has an obligation—to see that the funds for which they have a responsibility, the assignments for which they have an obligation, are carried out fully.

The buck, as it is said, truly stops with EPA, and though we shared some of the problems here that the contractor community might be having, that by no means lets the contractor community, as you know, off the hook. But it is up to EPA to have the enforcement mechanism in place and have the determination to see that we get what we pay for.

I thank you very much.

We have been joined by my colleague from across the river, as they say, and I would ask Senator Moynihan if he has any questions of the panel or would like to make an opening statement.

Senator MOYNIHAN. I have none, but I have listened with great advantage, and I thank the panel.

Thank you, Mr. Chairman.

Senator LAUTENBERG. Senator Baucus.

Senator BAUCUS. I have no questions.

Senator LAUTENBERG. Thank you very much.

I thank the panel and now invite the Administrator, Mr. William Reilly, and Mr. Child, who is the President of the Association of State and Territorial Waste Management Officials, to come forward.

Once again, this is an oversight hearing, and therefore I would ask you to raise your right hand and be sworn.

[Witnesses sworn.]

Senator LAUTENBERG. Thank you very much.

We welcome Mr. Reilly and Mr. Child to the table. In particular, we are encouraged to see the EPA Administrator come through to the table with less than a noxious cloud hanging over his head, and in a room surrounded by fog and smog and distrust. Bill, as they say, "You've come a long way, Baby." You have helped restore a measure of confidence in the agency, for which we compliment you.

We know that you have taken up the cudgels on behalf of your portfolio—and you need not agree with this. That does not always make it easy. You took over an agency that had many problems. Perhaps it was the ultimate orientation program because they were cut off from all funding, virtually out of business, and had to re-start, and that is never easy.

The Administrator, I think, worked hard, your predecessor, but it was a discouraging environment for people whose careers were insecure, the mission indefinite, so you came in at a time when we really did need the help of someone committed to the environment, and we compliment you on the restoration of some faith and confidence.

You know that it is not all rosy, that you still have a little bit of time to go before everybody stands up and applauds when you come to the room, but at least you have reduced the hostility considerably, and we are pleased to have you here.

We are going to call on the Administrator. Does either of my colleagues want to make any comments before we hear from the witnesses?

Senator BAUCUS. I do have some comments and question, but I will defer until later, Mr. Chairman.

Senator MOYNIHAN. I have the same, but I will not forgo the opportunity to endorse what you have said, sir. Eight long years on acid rain, and the clouds broke just a few days ago, thanks to you. I am very pleased and look forward to the actual legislative process. We will be getting a message from you, from the President?

Mr. REILLY. We are hoping to send up a bill within 2 weeks.

Senator MOYNIHAN. Within 2 weeks.

Senator LAUTENBERG. Very good.

Bill, with all that ardor, be prepared.

Mr. REILLY. I would like to quit now.

Senator LAUTENBERG. Please proceed with your statement.

STATEMENT OF HON. WILLIAM K. REILLY, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY JONATHAN CANNON, ACTING ASSISTANT ADMINISTRATOR FOR SOLID WASTE AND EMERGENCY RESPONSE; AND LEW CRAMPTON, SPECIAL ASSISTANT TO THE ADMINISTRATOR AND SUPERFUND TASK FORCE LEADER

Mr. REILLY. Thank you very much, Mr. Chairman. I appreciate very, very much those kind comments and opening remarks and will try to continue to live up to them.

I am accompanied here by William Child, who is President of the National Association of State and Territorial Solid Waste Management Officials, and also by Jonathan Cannon, who is the Acting Assistant Administrator for Solid Waste and Emergency Response, and by Lew Crampton, who directed this 90-day management review for me.

As you mentioned, during my Senate confirmation hearings and in response to questions you raised, I committed to oversee the preparation of this report and to submit it to you indicating what I intended to do about improving Superfund's performance during my tenure as Administrator.

Since I did not then have sufficient first-hand knowledge of the situation, I wanted to undertake as rapidly and energetically as possible a thorough review of the program, and the result is the report that you now have in your hands.

In conducting our internal review, our objective was not—and I want to emphasize this—to examine the underlying goals and objectives of the program itself. Rather, it was to identify the problems with the program and to focus on those aspects of implementation that have been criticized, that were questionable, that needed improvement, that needed more emphasis, perhaps, or more clarity.

We wanted particularly to identify the management options that we have in the program for improving the number, the pace, the quality and the cost effectiveness of the cleanup actions that we are taking at Superfund sites.

In developing the report, we involved 175 of our staff directly in this effort and interviewed hundreds of people affected by Superfund. We reviewed all 32 of the recently completed—and virtually all negative—studies that have been done on the program, one area about which there has been consensus.

Our staff closely read your committee's fine report, "Cleaning Up the Nation's Cleanup Program." Although we were unable to respond to all of your specific findings and recommendations, since we just got your report as we were wrapping up our own, we found the report you did very valuable and tried to incorporate its basic message into many of our own commitments and recommendations.

In fact, your report identified many of the same problems and proposed several of the same solutions that appear in our report, and we are most appreciative of it. We are particularly grateful for the timing, and I want to assure you now of our intention to study it further and to use it as the basis for an ongoing dialogue with your committee.

Let me add one other thing about the way this report was prepared. I mentioned that 175 of our agency staff were involved in it. We did not involve contractors in any part of that study, sir.

For me, the most important finding of this study is the need to set realistic and specific expectations for a program of the relative novelty and scope of Superfund. At the time of the program's initial enactment in 1980, virtually no one had any practical experience with the difficulty or duration associated with cleaning hazardous waste sites to health-based standards.

We now know that the cost of construction at sites currently on the National Priorities List is likely to be about \$30 billion, assuming that half the work will be done directly by the fund and half by responsible parties. It will likely take about 13 years to begin construction on just those sites already on the list, and we expect to add about 75 to 100 more sites to the list per year.

Senator LAUTENBERG. Did you say completion, Mr. Reilly, or construction?

Mr. REILLY. Construction.

Based on our current inventory, we expect the National Priorities List to grow to about 2,100 sites by the year 2000. Currently, the average cost of construction per site approaches \$25 million, and we believe this figure, too, is likely to grow as some of EPA's more complex sites move from the study stage into the construction pipeline.

Since EPA is formally entrusted with public stewardship of the Superfund program, it depends entirely on the American people's genuine trust and support to carry out that mission. To earn the trust necessary for the program's success, EPA must clarify, communicate, and gain broad acceptance for its fundamental strategy in carrying out the program.

With this report, we are proposing an explicit long-term strategy for Superfund. Although little in this strategy is new, since most of its principles had begun in one measure or another to drive aspects of the program in recent years, this is the first time they have been set forth as EPA's comprehensive declaration of program philosophy.

I see my time has run out, Mr. Chairman. I was going to give you a shorter statement and submit the longer one for the record.

Senator LAUTENBERG. If you can summarize, we have a couple of minutes to give you, Mr. Reilly.

Mr. REILLY. Thank you.

The strategy contains the following elements: control acute public health threats immediately, attack worst sites and worst problems first, carefully monitor and maintain sites over the long term, emphasize enforcement to induce private-party cleanup, seek new technologies for more effective cleanup, improve the efficiency of the program's operations, and encourage the full participation of communities in decisionmaking at Superfund sites.

The major substantive sections of the report fully support the elements of this strategy. The report features a strong enforcement program exhibiting a clear bias toward private-party cleanup. It aggressively involves citizens as early as possible in the decisionmaking activities at Superfund sites, including sites operated by responsible parties.

It identifies barriers to the development and use of treatment technologies as well as opportunities for further investment in research and in technical support. It sets forth recommendations for management reforms to strengthen the process for selecting clean-up remedies at sites and to promote consistency in the remedial actions taking place at Superfund sites all across the country.

It establishes incentives to help us attract and retain the best and the brightest talent within EPA to run the program, and it sets up structures to guard against conflicts of interest between the program's work and the contractors we hire to carry out that work.

It invites the public to join us in a dialogue on Superfund in the hope that we can improve our performance through better oversight, and it sets forth clear and simple measures the public can use to objectively measure the program's progress.

With respect to the challenges ahead, the President promised Congress and the American people that he was firmly committed to cleaning up hazardous waste sites when he said, and I quote, "I am for an aggressive, no-nonsense approach to cleaning up toxic waste dumps. I am for strengthening enforcement against dumpers, quickening the pace of our cleanups, and streamlining the bureaucracy that sometimes slows them down."

This report constitutes the first installment toward fulfilling that promise. This is a very ambitious and important program. It deals, after all, with the scars, the wounds, really, of the industrial revolution, many of them left over from a time when no attention at all was paid to the health effects or the ecological impacts of hazardous waste. It is making a start in doing that.

I am fully committed to solving these problems and to making this program effective. I know that you are, too, sir, and I look forward to cooperating with you and the committee in doing that.

Senator LAUTENBERG. Thank you very much, Mr. Reilly.

Mr. Child, we invite you to give your testimony now.

STATEMENT OF WILLIAM C. CHILD, MANAGER, DIVISION OF LAND POLLUTION CONTROL, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY; AND PRESIDENT, ASSOCIATION OF STATE AND TERRITORIAL WASTE MANAGEMENT OFFICIALS

Mr. CHILD. Good morning, Mr. Chairman and Senators.

My comments this morning will be extremely brief, but I ask that my prepared testimony be accepted for the record.

Senator LAUTENBERG. Without objection.

Mr. CHILD. I am William Child. I am the manager of the Division of Land Pollution Control with the Illinois Environmental Protection Agency, and I had the honor of serving as one of the State members on Administrator Reilly's 90-day Superfund Management Review Policy Committee, along with three other State representatives.

I also serve as the current President of the Association of State and Territorial Solid Waste Management Officials.

Let me begin by expressing my full support for the 90-day Superfund management review recommendations. The study was an intensive, straightforward effort at achieving the possible under the current statutory authorities. Superfund is a landmark program in

national policy and represents a model piece of legislation aimed at bringing polluters to the negotiating table and causing their horrendous sins of the past to be cleaned up. For this, we all owe Congress a debt of gratitude.

I know that in its fundamental demands Superfund is working because I have seen out in the State where I do my daily work facilities which are being cleaned up in a manner most protective of human health and the environment. I have seen the effects of an effective, immediate removal program where sites are being stabilized, drums are being removed, surface contamination is being dealt with.

I have seen a pre-remedial program that is scoring sites in an effective manner, and I have seen them being listed on the National Priority List, and I have seen the development of very substantial State programs to deal with sites that do not score high enough to be on the NPL and to help our Federal partners in dealing with some of the NPL sites.

Let me touch upon three areas of the report which I believe are key to getting the strongest possible Superfund program. First, Mr. Reilly has made mention of the size of the program. He has said it is currently 1,200 NPL sites and expected to reach 2,100 NPL sites. But CERCLIS, the inventory for the potential hazardous waste sites, numbers the sites to be dealt with at 20,000 sites. While most of these sites will not go on the NPL, the public expectation is that they will be dealt with, and Superfund will be a failure if, in the public's eyes, this public expectation is not met.

To clean up a substantial portion of the 20,000 sites will take decades, and the States are now cleaning up those sites which are not making the NPL. Because of the workload created by the expectation that these sites which score significantly, not just 28½, will receive appropriate remediation, many States have developed excellent remediation programs that are currently assessing, regulating, and cleaning up contaminated sites.

As an example of a couple of State programs that are doing this, I would like to submit for the record two publications, one from Minnesota and one from Illinois, which describe the State programs in those States.¹

Because of the massive number of sites to be remediated, we must identify, mobilize, and utilize all of the resources possible to get the sites cleaned up.

I know of only four such sources of resources to attack this national problem. The first is U.S. EPA. The staff is young, the turnover is high, and many are lured away by the promise of higher salaries to the contractor segment.

The second is the responsible parties, and I will talk about this later.

The third, of course, is the contractors. Contractors require supervision by the regulated community and may be the most expensive way to deal with the problem.

The last area that I have not heard mention of today is the State resources that have been developed out there, out in the States.

¹ The publications referred to have been retained in committee files.

This brings me to my second point. The States strongly support the enforcement-first strategy. It is the experience of many of the States that the key to a sound, efficient cleanup program is starting all of the sites in the enforcement arena. The first thing you do is bring the PRPs to the negotiating table, you make them negotiate in good faith in a very fixed time frame, and if they fail to negotiate, to do the cleanup according to the Superfund standards, then the Superfund fund is used to leverage them into doing that work. Those that refuse to do the work then fall to the fund for cleanup.

This maximizes one of our potential resources out there, and that is the use of responsible parties. To give you an example of how this maximization might work, U.S. EPA is only getting about 50 percent of its cleanup work done through responsible parties. In contrast, Illinois' rate is 60 percent, Minnesota's rate is 75 percent, and we are using the enforcement-first strategy.

My third point is that the States are the biggest unused resource that is left available to us. The States are the forgotten asset in this national environment work force, and many States have very well developed and effective cleanup programs. Many others are willing to develop top-notch programs. There are still some States which have few pressing environmental problems or which have very few sites which will not be in the program, but certainly well-resourced State programs can meet the national standards and bring considerable new resources to bear on this huge national problem.

I see that my time is up and would be glad to answer any questions that you may have.

Senator LAUTENBERG. Thank you very much, Mr. Child.

Mr. Reilly, or Mr. Crampton, who has this particular function within the agency, while the consensus is that the EPA review is a positive contribution, our first panel as well as our own report raised some issues not fully addressed in your review. Does EPA plan to take such issues and views into account as it drafts the final implementation plan for the review?

Mr. REILLY. Yes, sir, we do. We would expect to be able to share that implementation plan with you in about 3 months, in mid-September—I will say September 21 to be specific—and to elaborate on the recommendations we have made here in the management review and also to address those other unaddressed issues as well.

Senator LAUTENBERG. The GAO has observed that the issues of deadline compliance and contractor management are not fully addressed in your review. Can we expect some further recognition of these problems in the review's implementation plan or in the EPA management programs?

Mr. REILLY. Yes. I think that we would be prepared to do a regular periodic report on deadline compliance. It is done for me monthly, and it can certainly be shared on that schedule or perhaps a broader one with the Congress and with the public.

Senator LAUTENBERG. The question about the contractor responsibility, we heard Mr. Child's comment about that, about how the State really has to take a major role in enforcement and initiation of cleanup programs. We also heard about responsible party contributions to the cleanup programs.

You cited Minnesota, for instance, Mr. Child, as having a 75 percent recovery rate. Was that correct?

Mr. CHILD. They have 75 percent of their sites with the RPs doing the work.

Senator LAUTENBERG. You used your own State's 60 percent achievement, and EPA has pointed to a 50 percent recovery—is that correct?

Mr. REILLY. Yes, sir.

Senator LAUTENBERG. Are we saying, just to be sure, that 50 percent of the cleanup responsibilities, costs, have been attributed to responsible parties and that we have been able to recover? Mr. Crampton, do you want to clarify that, please?

Mr. CRAMPTON. Right. What that statement means is that on sites this fiscal year, over half of the projects are being done by responsible parties. In many cases, Federal costs have not been recovered yet. Responsible parties are committed to do the work. When the work is completed, of course, then the Federal dollars spent go into the we-get-the-money-back column. We hope, by the way, if I may continue, we hope to increase that percentage from its current slightly over 50 percent to about 60 to 65 percent PRP lead sites in a number of years, say 3 years.

Senator LAUTENBERG. How do you intend to do that?

Mr. CRAMPTON. Basically, the resources that are being reprogrammed in this report will be going toward increased enforcement. That will go in a couple of areas. One is into legal enforcement, more lawyers to go to the regions. It will also go to technical enforcement, which is a term we use to describe PRP oversight, the work we do to sustain and support the negotiations that are ongoing between our people in the field and with the PRPs. In many respects, these negotiations have not gone very well because we have not done some of the initial investment up front in PRP searches and data and information on the sites. That is what these new people would be doing, and it should push our PRP participation rate higher.

Senator LAUTENBERG. Well, there are a couple of questions raised there. Is the enforcement mechanism sufficiently stringent? Are we settling too quickly or too easily? Obviously, the person who represents EPA on that behalf does not think so, but there is a body of information that raises some questions. I wonder whether you have had a chance to examine the question.

Mr. REILLY. I am going to invite Mr. Cannon to comment on that in a minute. The point has been made in your report and in others that there may be some difference in the way cleanup is done, remedies decided upon, costs allocated in fund-led sites as opposed to enforcement-led sites.

That obviously is a disturbing problem if it exists, if it is real. I am not persuaded, based on what I have seen, that it is true, but we are committed to inquiring further into it and in monitoring very closely, because if it is true, there is certainly no excuse for it.

The preliminary look we have given to the data Mr. Cannon can describe.

Mr. CANNON. A comment on the role of settlements in the program. Most of the enforcement cases we bring are resolved as settlements. That is true of almost any enforcement program. Howev-

er, I think it is important to keep in mind that those settlements are driven by the threat of carrying enforcement actions to full term.

We have some very powerful tools that you have given us in the statute, including the threat of treble damages if a PRP refuses to comply, and including the threat of penalties.

What we hope to do, and what the 90-day study says we will do, is to set a specific time frame within which negotiations can occur. If settlement favorable to the Government is achieved during that time frame, then the PRP will go ahead and do the work and we can take the fund and use it elsewhere.

However, if settlement is not achieved within that time frame, the agency will routinely issue a unilateral administrative order requiring that the PRP do the work, and if that order is not complied with, then we have the option of either going to court and getting an injunction at that time or using the fund and later on going back against the PRP and collecting treble damages. Our expectation is that that mode of proceeding will produce a greater percentage of settlements and high-quality settlements from the PRP community.

Senator LAUTENBERG. Thanks. There is still some slight measure of confusion. Mr. Crampton, 50 percent of the sites now under either construction or investigation, what level are we talking about?

Mr. CRAMPTON. That is now under, and that is up from—

Senator LAUTENBERG. Now under what?

Mr. CRAMPTON. Now under remedial construction.

Senator LAUTENBERG. Under construction?

Mr. CRAMPTON. Yes.

Senator LAUTENBERG. What is the current situation at such sites?

Mr. CRAMPTON. Where the remedy has been selected—this is after the ROD decision has been made—those are in excess of 50 percent PRP or responsible lead sites. That is the current situation, and that is up from, I believe, 1 or 2 years ago.

Senator LAUTENBERG. All right. Is that in the whole universe of the roughly—can we project that into the universe of the sites on the NPL now? Do we have enough information to say that we think that at least 50 percent of those sites—are we only talking about an historical reference at this point?

Mr. CRAMPTON. I think, with respect to the remaining sites on the National Priority List, if that is your question, that given the fact that we are doing even more to emphasize the clenched fist of enforcement or the open hand for negotiations, that that ought to result in an even higher percentage of sites being done by responsible parties, which means, therefore, that the fund should go further.

Senator LAUTENBERG. What is the scope of responsible party commitment?

Mr. CRAMPTON. Well, sometimes, of course, a lot of these sites are very complex. You may have several PRPs, you may have several hundred PRPs.

Senator LAUTENBERG. Right. So they are not agreeing in advance to the full cost of this cleanup.

Mr. CRAMPTON. That is right.

Senator LAUTENBERG. We are moving ahead, and we are saying we are going to clean this thing up regardless.

Mr. CRAMPTON. That is right.

Senator LAUTENBERG. We have someone who we think has the obligation to pay for it, and we are going to be fighting with them or talking to them about assuming that responsibility. But we have no assurance at this point. The 50 percent does not result in an exact monetary reimbursement.

Mr. CRAMPTON. No, that is just numbers of sites and the percentage of PRP-lead sites versus fund-lead sites.

Senator LAUTENBERG. All right.

My time is up. I would like you to think about what the potential recovery is for the funds expended.

Mr. CANNON. May I add one comment on that, Senator?

Senator LAUTENBERG. Sure.

Mr. CANNON. The 50 percent we are talking about are sites where we have enforceable agreements from PRPs to complete the work, whatever that may entail, to clean up those sites. Now, in some few cases we have mixed funding where the government contributes a portion pursuant to prior agreement. But the commitment of the PRP there is to complete the task, whatever that may be, to achieve acceptable cleanup at that site.

Senator LAUTENBERG. Thank you.

Senator Baucus.

Senator Baucus [assuming Chair]. Thank you, Mr. Chairman.

Mr. Reilly, I want to publicly congratulate you for your successful efforts in persuading the President to come up with a Clean Air Act schedule which I think is very good, not only the schedule but also the provisions.

The details, though, are very important. We look forward to the legislation which the administration will be sending up to us as quickly as possible. We all now agree on the broad outlines of a bill. It is now critical that we act together, the Executive Branch and the Legislative Branch, very quickly so that we can wrap up the passage of a bill, hopefully by the end of this year.

To that end, I yesterday sent a letter to the President outlining the schedule that we in the Senate intend to pursue, and I would like to tell you what that is and urge you to join in with us in helping us meet our deadlines.

We will introduce our nonattainment bill in a couple of weeks, hopefully before the July 4 recess, but in all probability it might slip to just immediately after the July 4 recess. We will also introduce the acid rain bill in July. We will have a good number of hearings in July, but in order to allow people to be fully heard, we will also schedule hearings in September.

It is my hope to begin markup on the Senate bill in this committee in September and October; go to the floor, hopefully, the end of September, October, the Senate schedule permitting; and then, hopefully, go to conference with the House at the end of October.

Now, we will be able to meet that schedule, obviously, the more quickly the administration can send up the bill. When we met with the President—and you were there—a week ago, Mr. Sununu said

that we would have the legislation by the end of that week, or the next week.

Mr. REILLY. You almost had him saying it would be ready by the end of the day, as I recall.

Senator BAUCUS. I think that is right, yes. [Laughter.]

And so could you again tell us when we could expect to see the bill?

Mr. REILLY. We began preparation of a bill, Senator—thank you very much for those comments, too. I appreciate them very much. I am sure the President will be very pleased to have—

Senator BAUCUS. And I also do congratulate the President. It is a very solid, good first step toward cleaning up the air, and he has done a good job thus far.

Mr. REILLY. Thank you, sir.

Well, we approached it in a very cooperative, very bipartisan mode, and I am particularly pleased to hear the schedule, the specific schedule, and the speed at which you hope to bring it on. That is entirely consistent with everything we want to see happen. The President said he would very much like to sign this bill on January 1, 1990, and it sounds like that just might be a possibility.

Senator BAUCUS. I would like, for you, if you could, to meet with me on a regular basis, let's say, beginning next week, so that we can work out both bills.

Mr. REILLY. I would be very happy to do that.

Senator BAUCUS. I think that would go a long way to help.

Mr. REILLY. I would be very happy to do that.

To repeat, I am not sure whether you were in the room when I said I think that our objective is to have a bill up within 2 weeks. We have done a good deal of work on it. We have draft legislation that we have been working on for the better part of 3 months at EPA. It has been, it remains, our top legislative priority. There is a certain amount of discussion, obviously, to be done on the details, but I think we can come very close, if not to meeting that 2-week deadline we set for ourselves—

Senator BAUCUS. That is 2 weeks from when?

Mr. REILLY. From now.

Senator BAUCUS. From today?

Mr. REILLY. I think we can have that bill up by the first of July.

Senator BAUCUS. I appreciate that.

Mr. REILLY. We will certainly have it for you at the end of that July 4 recess if we miss that, but we will do our very best to get it up by the first of July.

Senator BAUCUS. Thank you very much.

Turning to another matter, Superfund, as you well know, we discuss this with some frequency. There is a major cleanup operation in the State of Montana. So far EPA has spent about \$20 to \$26 million. I think responsible parties have spent about \$20 million as well, but with very little actual cleanup. I am referring to the Butte, Montana, site.

You may know there are many newspaper stories and headlines very critical of the slow progress in cleaning up that site. It is very important to those people, obviously. It is important to business. They are trying to build and attract new business in that part of the State, and they are concerned about the image that Butte has

because it is a Superfund site, and obviously, the more they can show progress in cleaning up, the more they can attract new business and expand present business opportunities.

As you know, the EPA has provided for one person full-time at Butte to help coordinate the cleanup. But, nevertheless, as I said, there is virtually no cleanup even though a total of \$46 million has been spent by the Government and by responsible parties. Can you give me some assurance that EPA will move more quickly?

Mr. REILLY. Well, sir, we did, as you recall—I think it was at my confirmation hearing that you first mentioned Butte, and I promised that we would do what we could and then later committed full-time staff to oversee it.

I will get involved with that myself and begin to look at some of the concerns that you have and see if we can accelerate the clean-up schedule.

Senator BAUCUS. I would appreciate that.

Thank you. I have no more questions.

Senator Moynihan.

Senator MOYNIHAN. Sir, let me just admire that phrase, "the wounds of the industrial revolution."

That is what we are dealing with in our politics and our ecology the world over, and it occurs how intractable they can be. As you know, Superfund begins at Love Canal, and if you think of the Erie Canal across Upstate New York as sort of our first industrialized region, which is what the case is, you just go from one place to another and one horror to another, and so on, inglorious. You know, life is a lot better now than it was then.

But the issue that has troubled me since the time of Love Canal is that we undertook these enterprises as public health measures. We said the public health is at risk, and you used the phrase "acute risk to human health" as the first of your criteria as you approached these things.

And yet I persist in thinking that we really do not have much of a hold on what are in fact the public health effects before and after and during. I have despaired of the New York State Health Department, which was once the great epidemiological center of the world, until the Atlanta one began.

If I were to say to you that there have been no public health consequences of any kind to the Love Canal, would you—I am not pressing you—would you be able to tell me I am wrong?

Mr. REILLY. We begin with a strong sense that where you have extremely noxious materials that are highly toxic and that are migrating into groundwater, are getting off-site, are sometimes discovered in drinking water, the presumption certainly has to be that the risk to health is present, and it may be serious, depending on the exposure of people around that site. Certainly the people who live around these sites have a very deep concern about them and a belief that they are being threatened.

Senator MOYNIHAN. But I think you would agree, aren't they entitled to something more than a deep belief? Aren't they entitled to some evidence?

Mr. REILLY. I agree, they certainly are. Yes, sir.

Senator MOYNIHAN. Because otherwise, just deep belief—Thurber's aunt had a deep belief that electricity was leaking out of

light bulb sockets that did not have light bulbs in them. There are lots of deep beliefs in the world that are not very reassuring.

People are entitled to say the profession, at the edge of its competence, has settled this as much as it can do for now; in a generation hence, we will probably know more.

Can I just ask you to think about some connections with the Public Health Service and all? We haven't five cents' worth of evidence about the Love Canal, and some work that was undertaken was on the edge of quackery. Louis Thomas had to just throw out a whole study of broken chromosomes and things like that. It just was primitive, painful, irresponsible. Those are my words about my own State. And I just think a strong presumption is prudent, but a decade after a strong presumption, there ought to be some medicine. Would you sort of respond?

Mr. REILLY. I believe very strongly that science is at the core of our integrity as an agency.

Senator MOYNIHAN. Yes, you are right.

Mr. REILLY. I think that we have to be careful to apply scientific analysis across the board into all of our programs where they are concerned with protection of the public health, with the environment. As you know, there is a sense on the part of many of EPA's professionals that the health risks associated with some of these problems are less than the health risks associated with some other parts of the responsibilities that we bear. But in terms of systematic analysis of the health consequences of the sites, it is something we did not really address in this management review and perhaps ought to be a major charge to what we do in the future.

Senator MOYNIHAN. Why don't you give some thought to that? It is a good subject. I make a general point which I could not demonstrate, but it seems to me life is full of risks, and in the end it comes to a bad end.

We don't want to have a hyper-risk awareness and a needless one, that is all.

Mr. REILLY. Yes, sir.

Senator MOYNIHAN. We could talk about that, perhaps.

Mr. REILLY. All right.

Senator MOYNIHAN. The other thing I would like to say is to thank you for your proposition about a bias toward private party cleanup. I have, as Senator Baucus has—and if you are going to do good in these businesses, you do good in minute particular—and, as you know, I have a preoccupation with Onondaga Lake, which is in that Erie Canal area. Onondaga Lake—you talk about the wounds of the industrial revolution.

The Allied Chemical, now Allied Signal, dumped toxic materials into that lake for a century. It was part of the soda ash process. And when there wasn't any more room for it, they just closed down and left. About a third of the volume of the Onondaga Lake, which feeds into the Erie Canal, which feeds into Lake Ontario, and so forth, is sediment.

Allied is the 29th largest corporation in the country. Last year it had profits of \$4.2 billion. It does not propose to spend a penny on this. I mean, they have left. I wish you would go after them.

How do you make that list you have of primary toxic impaired waterways? You have Getty's Creek, which flows into Onondaga,

which has carried mercury for a long while, but you don't have the lake itself.

I am going to propose a bill, and I will send it to you and see what you think—I hope you think it is sensible—we call it the National Sediment Contamination Survey, you now take surveys of the sort of direct public health toxic problems associated with waterways and water sources, but the sediments are not surveyed. There has been a bias, I think, in our toxic waste toward things on ground, whereas the original way to dispose of anything was just into water, and cleaning up water-based systems is something we don't seem very good at.

I would just hope we would do a kind of survey of what are really slag heaps out of sight, and in the end, disposal is a formidable challenge, as I am sure your colleagues would agree. But would you make a general proposition that we might well survey sediments as well as the existing flowing water systems, as they are certainly part of our general problem in the context of the wounds of the industrial revolution?

Mr. REILLY. We have had, as you know, a lot of controversy about trying to deal with bottom sediments in various places, and there are arguments made that we should do more to clean them up, and there are arguments made that when we try to clean them up, we make things much worse than they were before, and we would be better off not disturbing some of them.

I do not know how systematically we have been engaged in that, or if we have looked at it with respect to places that you are particularly concerned about, but I am certainly open to doing it.

Senator MOYNIHAN. Good. Sure, it is not the easiest thing, and one of the problems is that, being out of sight, it is easily kept out of mind, and yet it is a reality.

I do wish you would remember Allied Signal.

The fifth largest aerospace, \$4.2 billion profits last year. They raped that lake for 102 years, and they just walked away.

And also, Mr. Chairman, while you were necessarily out of the room, the Administrator said something which I think you share with me and Mr. Baucus, which is a feeling that the health questions associated with toxicity are, after all, the reasons we are involved here, and we have not had much real research in this regard.

There have been presumptions, and in the first order, presumptions are sensible. But before a generation goes by, we ought to have some real public health, if not certitude, the kind of confidence that the medical profession can bring to issues so that we know not only what we are trying to do but whether in fact we are doing it.

Mr. Reilly was very responsive, indeed, and I would like to thank him for being so.

Senator Lautenberg [resuming Chair]. My initial reaction is that you are absolutely right and that we ought to associate ourselves with the ultimate objective.

I would like to ask Mr. Reilly—and thank you for your responsiveness thus far—our report and NRDC's testimony show that many believe the so-called deferral policy, the policy of deferring

sites to non-Superfund cleanup authorities proposed with the NCP is illegal.

Now, given these views, will you commit to holding off on that National Contingency Plan proposal unless and until Congress specifically authorizes it during the Superfund reauthorization?

Mr. REILLY. I am willing to defer on the deferral, I think, yes, sir. I think one of the major questions is the degree to which one can ensure or guarantee that the same kinds of procedures, expectations, standards, citizen participation, choice of priorities and remedies and treatment can be ensured by another entity as are contemplated in the Superfund program itself. That is a question that I have not reviewed myself, personally, sufficiently to be fully assured about right now, but I intend to.

Senator LAUTENBERG. I think that is important because in many cases that deferral just does not comply with the objective; it defers the need to attend to the problem, and I do not think we ought to let those things get away from us.

Another question that arises has to do with a serious commitment to examine the NCP proposals, and they relate to cleanup criteria, cleanup standards, approaches to costs. Mr. Reilly, can I get your commitment to consider all of these issues—again, costs, standards, cleanup criteria—to consider these issues that have been raised and to get your commitment to follow through on that? Is that something that I can rely on?

Mr. REILLY. Yes, sir.

Senator LAUTENBERG. Your review responded to a number of recommendations that we made on fixing TAG regulations, the technical assistance grants, and I want to compliment you for doing that, and I ask you to stand up to OMB in pushing these reforms.

What will you do to address the issue that NRDC raises about revamping the application and evaluation criteria to give more weight to the health effects that may be suffered, if any, by applicants?

Mr. REILLY. Well, in a specific instance that was mentioned, the Arkansas case, we have made an offer and subsequently learned more information that caused us to want to reconsider that offer. We are looking further into it and will not complete it unless we are assured that some of the criticisms and concerns that have been raised are without merit.

Apropos of the broader question on the TAG grants, I am not in the same position exactly with respect to assurances I can make that I am with respect to the 500 FTEs that we are proposing to add to enforcement and some other areas of need within our program on which I am quite firm.

I have a sense that the history with the TAG grants was one in which people without experience in making these kinds of grants, without a full sense of how to run the program, and perhaps analogizing too easily to the broader consultant or contractor community, set up some barriers, made some requirements in the program that are really not reasonable and that are not going to help it work.

I am committed to trying to go through those procedures and to removing some of those barriers to try to make sure that, where they impede our providing more funds in cases where that may be

appropriate, or providing funds to groups that do not meet some of the stated criteria, we are able to do that, and we have more flexibility.

Senator LAUTENBERG. That confirms your commitment to the program, however. I mean, it is something that we worked very hard on initially in the reauthorization, to make sure that community groups could get some understanding of what was taking place within their neighborhoods, within their towns, and a lot of people are very excited about having those resources available to them.

So if we have your commitment to the program, which you have said before, and to try to streamline it and make it more reliable, that is very satisfying to me, and I appreciate that.

Mr. Child, your testimony was very helpful and to the point about the States' role. What are the key things that you think the Federal Government has got to do in responding to the needs of the State hazardous waste programs? How can we help make them more effective without simply allocating more money? I know that that is one of the ways, but is there something else that we can do?

Mr. CHILD. I think the continuing dialog that we have started of bringing the States as full partners and letting the States help in the Federal cleanup program will be most helpful to the State programs. There are many things that the States are capable of doing right now.

One of the things I mentioned, for example, is the oversight of the responsible parties, that when these negotiations are met and the responsible party says, OK, I will do it, I will follow all the rules of Superfund and do a cleanup consistent with Superfund, it is then the responsibility of the governments to oversee that and make sure that that happens. That is a role that State government could help U.S. EPA with, by being their eyes and ears in the field, back in the home State, watching the PRPs and making sure that they don't leave a little of that stuff down in the bottom of the hole.

So those are some of the kinds of issues that we can do.

Also, on the partnership thing, give us the same tools to work with in the State that U.S. EPA has in terms of the enforcement authorities and the remediation and oversight authorities.

Senator LAUTENBERG. Has there been an appraisal, informally or otherwise, among you and your colleagues as to the availability of contractors without your States and the issues related to contracting?

Mr. CHILD. Those are all issues that the States have had to deal with. Speaking from just Illinois' perspective, we have been able to deal with them effectively. We have figured out a way to indemnify contractors through a pool that they pay into, into the State fund, which protects them. We spend a great deal of time overseeing our contractors to make sure that they are doing exactly what it is we are contracting with them to do.

And, to be quite honest with you, we finally reached a realization that perhaps using contractors is not always the most efficient way to do a problem. There is a very legitimate role for contractors where there is a very specific technology that they have developed that needs to be implemented. But if you can hire government employees to do the same thing, you can get about three units of work

out of government employees for the one unit of work you pay for contractors to do because of the expense, because of their overhead.

Senator LAUTENBERG. But we should not—and I agree with you—think of simply turning over the entire scope to a private contractor and say go do it and then be surprised that it doesn't get done. We are not talking about fraud, we are not talking about those things in particular, but rather just the incapability, the skills level, having the skills level necessary to do that job. Once more, I don't like the taxpayers in America to be paying any more for the learning experience than we absolutely have to.

Mr. REILLY. If I might add to that, Mr. Chairman, two things. One, we do call in the report for a study of contractor capacity nationwide to try to put a little more information behind some of our concerns.

Second, I have the strong sense that the EPA turnover problem has probably done more to improve contractor capacity than just about anything else. It is not something we are proud of or pleased about, but it is the other side of the problem.

Senator LAUTENBERG. We ought to get recompensed for training those people, set up an executive recruiter bonus that we get from them. That is a serious problem for government altogether.

Well, I would like to just make my final comment and turn to my colleague, Senator Baucus, and that is on enforcement. With an enforcement-first strategy, it is critical to make sure that enforcement works, and I want to commend you, Mr. Reilly, for the statement that you are going to direct your staff to continue to monitor the cleanup quality of the enforcement program, and I hope that we will be able to look at the results of that. There is an opportunity for recompense from responsible parties, and to make that it is very clear that, as far as I am concerned, and I believe as far as you are concerned, the buck stops with the EPA, and I thank you all for your participation.

Senator Baucus.

Senator BAUCUS. I have no questions. Thank you, Mr. Chairman.

Senator LAUTENBERG. Thank you very much. It is a pleasure to have Senator Baucus here with me. He is committed as few are to getting on with the task of not only cleaning up the environment but preventing further damage to it, and I thank you for your participation.

Thank you, Mr. Reilly and Mr. Child.

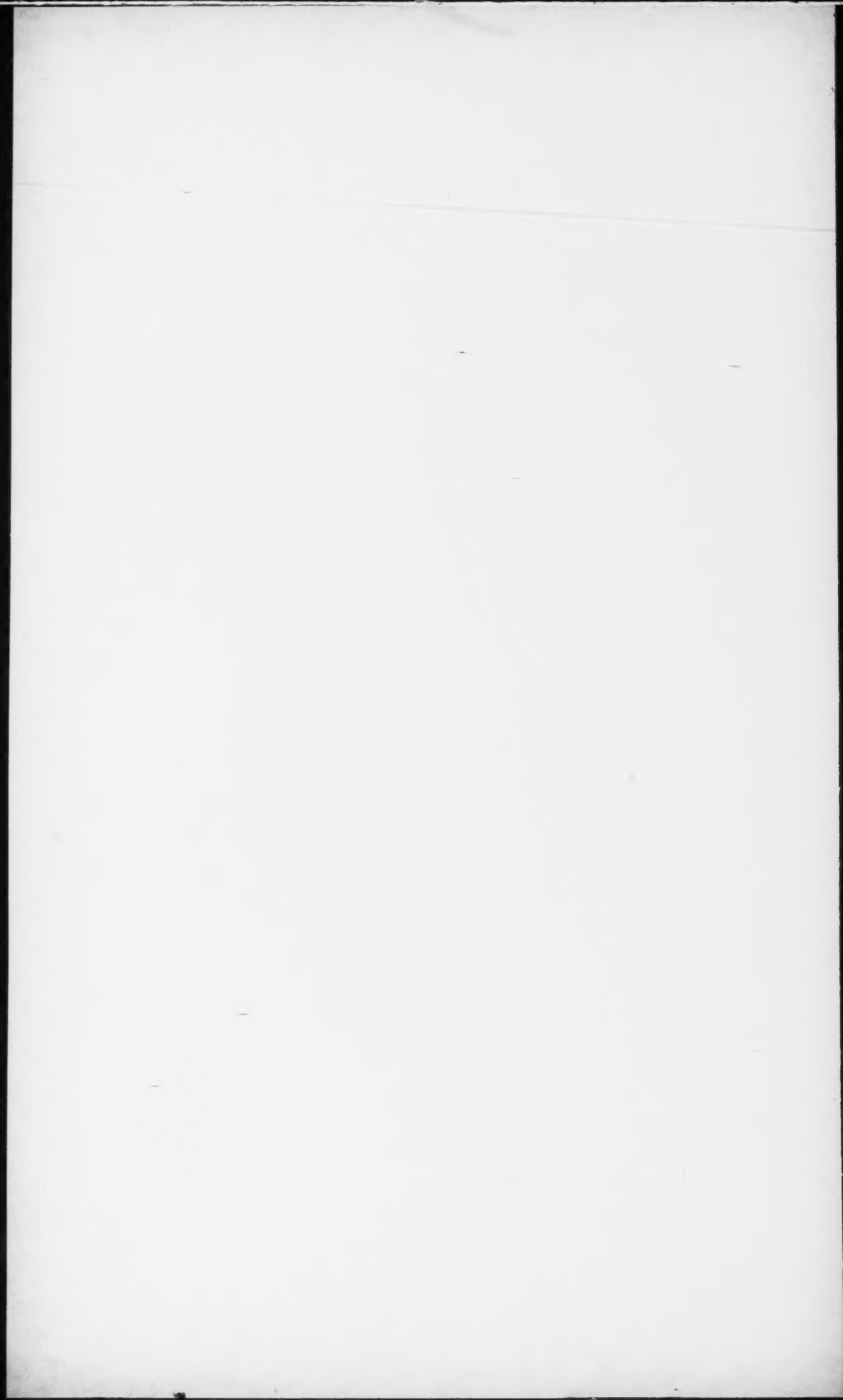
Mr. REILLY. I thank you, sir, and Senator Baucus.

Mr. CHILD. Thank you very much.

Senator LAUTENBERG. This hearing is completed.

[Whereupon, at 11:33 a.m., the subcommittee recessed, to reconvene at the call of the Chair.]

[Statements submitted for the record follow:]





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Testimony

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Making Superfund Work Better: A Challenge for the New Administration

Statement of Richard L. Hembra, Director
Environmental Protection Issues
Resources, Community, and Economic
Development Division

Before the
Subcommittee on Superfund, Ocean and
Water Protection
Committee on Environment and Public Works
U.S. Senate



Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to discuss our recent work on the Environmental Protection Agency's (EPA) Superfund program and present our views on EPA's Superfund management report. EPA's report responds to a commitment made by the new EPA Administrator during his confirmation hearings to examine this troubled program to clean up the nation's worst hazardous waste sites.

In summary, our work has shown that the nation has not been getting a fair return on its large investment in Superfund. The \$10 billion program has accomplished few major cleanups despite nearly a decade-long history and the obligation of \$4.5 billion. The most recent data compiled by EPA show that of the approximately 1,200 sites on or proposed for the National Priorities List, cleanups have been completed at only 41 sites and begun at another 204. These figures are even more startling when you consider that the seriousness of contamination at up to several hundred thousand additional potential hazardous waste sites may need to be eventually assessed.

Mr. Chairman, in your May 1989 comprehensive report on the Superfund program, you identified problems that have occurred over the years and made recommendations to improve the program.¹ Similarly, over the last few years, working under mandates from congressional committees and the 1986 Superfund reauthorization act, we have identified in a series of reports, management and operational problems that we feel have impaired Superfund's effectiveness. Specifically, we have questioned whether EPA has done all that it could to (1) get the most from contracting dollars, (2) maintain a stable, competent work force, (3) compel

¹Lautenberg-Durenberger Report on Superfund Implementation: Cleaning Up the Nation's Cleanup Program, Subcommittee on Superfund, Ocean and Water Protection, Senate Committee on Environment and Public Works, May 1989.

the organizations that contaminated the Superfund sites to pay for their cleanup, and (4) define the program's goals and work effectively toward achieving them.

EPA has also identified numerous weaknesses in the Superfund program as a result of the new Administrator's internal review of the program. Making many recommendations for improvement in Superfund areas, including problem areas identified in our own reviews, EPA's report appears to have taken an honest look at the program. Although some issues have not been dealt with directly, we believe the report can serve as the impetus for significant management improvements to Superfund. What remains to be done is the development of an implementation plan, which includes goals, priorities, and milestones for the recommended actions. Even more importantly, strong leadership, management commitment, and followup will be needed to analyze and implement those recommendations that make sense and keep the program on the right course.

GAO REPORTS

Before discussing EPA's Superfund report in more detail, I would like to spend a few minutes highlighting specific Superfund problems we have reported to the Congress in recent years.

Contract Management

One of these problems involves contracting. EPA's Superfund dollars largely go for contractor services covering the full range of program activities--from helping to develop regulations, to assessing the extent of contamination at sites, to doing the actual site cleanups. EPA's Procurement and Contracts Management Division expects to spend \$750 million on contractors in fiscal year 1989. In order to use its Superfund resources efficiently, EPA must manage its contractors well.

Most Superfund contractors work under cost-plus-award-fee contracts. Unlike fixed-price contracts, such as the Superfund construction contracts--which establish prices in advance of performance--cost-plus-award-fee contracts reimburse contractors for all allowable costs and pay base fees plus a variable award fee based on a subjective evaluation of performance. EPA uses cost-plus-fee contracts extensively because they can be awarded quickly, allow flexibility in directing the contractor, and are well suited for work that cannot be defined in detail ahead of time--such as planning Superfund cleanups at sites where the extent and nature of pollution is unknown. However, cost-plus-fee contracts carry inherent risks to the government because they provide fewer incentives for contractors to control costs.

We reported in July 1988 that EPA had not sufficiently controlled Superfund's cost-plus-fee contracts.² The focus of EPA management was on the timeliness and quality of contract work, not on cost control. At over half the Superfund sites we reviewed, inadequate contractor performance had increased costs. Although EPA could have challenged unallowable costs or negotiated cost increases, it accepted and paid most of these increases without challenge. This practice could have, in fact, sent contractors the message that all costs were acceptable regardless of performance, and increased contracting costs. In addition, we reported that EPA was paying fees for good performance to contractors whose work EPA later judged to be unsatisfactory. We recommended, in addition to specific corrective actions, that the EPA Administrator affirm his commitment to cost control by communicating to EPA officials the importance of balancing timeliness, quality, and costs. Although EPA officials generally agreed with our findings and took some actions, we remain concerned about the level of emphasis EPA is giving to contracting.

²Superfund Contracts: EPA Needs to Control Contractor Costs (GAO/RCED-88-182, July 29, 1988).

EPA's new-contracting initiative, called the Alternative Remedial Contract Strategy, will increase the number of Superfund contracts EPA awards. This strategy will replace the handful of large nationwide remedial contracts with 40 or more regional contracts. It will also decentralize contract oversight by placing contracting officers in the regional offices. EPA believes that by allowing decisions to be made at the local level rather than at headquarters, the new strategy will increase competition and speed cleanups. In our view, this approach also brings with it the need for even stronger EPA oversight.

EPA's Superfund contractors who design cleanup remedies and have access to EPA's enforcement plans also work for the private parties liable for cleanup costs. EPA needs to carefully control these potentially conflicting contractor roles to ensure that contractor work is objective and sensitive enforcement information is safeguarded. In a February 1989 report, we disclosed serious weaknesses in EPA's conflict-of-interest controls.³ For example, we reported that EPA had not routinely reviewed contractor operations for conflicts or even documented what actions were taken to resolve conflicts when they were discovered. In addition, because requirements were not clear, contractors were supplying EPA with varying amounts of information on potential conflicts. EPA has not yet formally responded to the recommendations we made for preventing conflicts of interest.

Maintaining a Capable Work Force

Another issue EPA has to contend with is maintaining an effective Superfund work force. At the same time EPA has been

³Superfund Contracts: EPA's Procedures for Preventing Conflicts of Interest Need Strengthening (GAO/RCED-89-57, Feb. 17, 1989).

trying to build a Superfund staff, the private hazardous waste industry has been growing. EPA has at times had difficulty competing with the private sector for people, and as a result, personnel turnover in the Superfund program has been high.

In an October 1987 report to the Congress, we discussed a growing employee retention problem as employees left Superfund primarily to seek better opportunities for advancement.⁴ They frequently went to work in the hazardous waste field, getting an average of about \$7,000 more a year than they earned at EPA. One-third of the Superfund employees we surveyed said they planned to look for other jobs the following year. As you noted in your May 1989 Superfund report, Superfund employee turnover remains much higher than turnover in other EPA programs despite EPA's efforts to improve compensation and other job features.

Our 1987 report also discussed ways to improve EPA's measurement of how many Superfund employees were needed and how productively employees were working. Large differences we found in the size and occupational skills of the Superfund staff from one EPA region to another suggested that EPA needed a better basis for its work force decisions. We recommended that EPA use actual data on the time needed for various Superfund tasks to calculate required staff size, instead of relying solely on the judgment of managers. We also said that EPA should make use of available data to measure the productivity of Superfund staff. EPA did not accept these recommendations because it thought the program was too new and varied too much from site to site to make more objective measurements of staff needs or productivity practical. We think this EPA position is mistaken and that, after almost 10 years of experience, EPA should be able to devise more exact ways of

⁴Superfund: Improvements Needed in Work Force Management (GAO/RCED-88-1, Oct. 2, 1987).

determining the work force it needs and measuring employee productivity.

Superfund Enforcement

Another area that warrants close attention is EPA's enforcement activities; that is, its efforts to get those responsible for hazardous waste sites to either clean up the sites themselves or pay the cost of an EPA cleanup. So far, these efforts have lagged; as of March 1989, EPA had paid all costs at over half of the Superfund sites where preliminary studies were underway, remedies were being designed, and construction was started or completed. EPA had spent \$1.7 billion that is now recoverable from responsible parties, according to the Superfund Enforcement Chief's best estimate. EPA has received only \$126 million of this amount, however, as of January 1989, according to a Financial Management Division official.

We expect to issue a final report to this Subcommittee in September on our review of the Superfund enforcement program. We did, however, issue an interim report on our findings in October 1988.⁵ In that report, we disclosed various enforcement weaknesses that have slowed the cleanup process and in some cases reduced the share of cleanup costs borne by responsible parties. These included:

--late and incomplete searches for responsible parties and failure to pursue parties once they are found,

⁵Superfund: Interim Assessment of EPA's Enforcement Program (GAO/RCED-89-40BR, Oct. 12, 1988).

--delayed negotiations and limited use of enforcement authorities, and

--slow action to recover costs.

Searches and Tracking Systems

EPA's enforcement efforts begin with a search for parties responsible for contaminating Superfund sites and liable for cleanup. At about one-third of the sites undergoing cleanup, EPA searches as of October 1988 have not identified any responsible parties able to pay cleanup costs. In response to our questionnaire, 50 percent of the regional project managers and attorneys said they were dissatisfied with the thoroughness of the searches in the past year. In a 1988 study, EPA management also identified problems, including poorly done investigations. Yet, EPA has no system for identifying inadequate searches that should be redone. In addition, although EPA guidance recommends that searches be completed well before any federal funds are spent for cleanup, about half the 65 searches we reviewed had not been completed by then.

After potentially responsible parties have been found, the next step is for EPA to send them letters requesting information on their activities at the sites. But, because two of the three regions we reviewed did not routinely track responses to these letters or always pursue responsible parties, some parties may have avoided their share of site cleanup costs.

Negotiating and Compelling Cleanups

Negotiations with responsible parties have been late starting and slow concluding. While the potent enforcement authorities EPA has been given by the Superfund law can help bring responsible

parties into negotiations and hasten settlements when they get there, EPA has infrequently used these authorities.

At the sites we reviewed, delays in starting negotiations slowed cleanup an average of over 4 months. Once they began, the negotiations were often prolonged. About 25 percent exceeded 6 months--EPA's goal for completion.

At the same time, enforcement tools, such as court enforceable orders to pay for clean up or pay heavy fines and Department of Justice legal actions, have been seldom used. Your recent Superfund report underscores this by pointing out that EPA has referred only three cases to the Department of Justice for action to require cleanup since the Superfund amendments of 1986 and from fiscal years 1981 to 1987 had issued only 15 administrative orders requiring cleanup.

We know that, when used, these administrative orders can produce results. While EPA issued orders during only 2 of the 18 negotiations we reviewed that exceeded the 6-month EPA standard, settlements were reached in both cases soon after the orders were issued. Superfund project managers and attorneys told us in response to our questionnaire that enforcement techniques were underutilized.

Cost Recovery

In addition to trying to get responsible parties to pay for cleanup initially, enforcement also involves recovering the costs of an EPA cleanup. As we mentioned earlier, EPA has recovered very little of the money spent cleaning up sites. In fact, as of June 1989, EPA has only achieved 32 percent of its goal to recover \$450 million by 1991, according to a Financial Management Division official. Several factors hinder EPA's cost recovery. For example, EPA so far has not attempted to recover all its indirect

costs of cleanup, such as preliminary assessments of potential sites and research and development. EPA estimates that total indirect costs approach \$1 billion. Another obstacle is EPA's slow issuance of letters to responsible parties demanding payment. EPA guidance stipulates time frames for such letters. However, in the three regions we reviewed, EPA did not issue demands for payment within these time frames in 70 percent of the 47 cases we reviewed.

Many of the problems we found in our enforcement review have been caused in part by the continued lack of EPA resources. In fact, 83 percent of the respondents to our questionnaire believe that their regions definitely need additional personnel. Again, as we pointed out earlier, EPA would be in a better position to determine its work force needs by using objective measures. Another factor that created problems was the separation in the regions of technical and legal staff--the technical staff being in one division and the legal staff in another. Fifty percent of the respondents to our questionnaire said this split had decreased their ability to work efficiently over the past year.

Setting and Meeting Goals

Beyond dealing with the contracting, personnel, and enforcement problems that have troubled the program, EPA, working with the Congress, needs to define Superfund's goals more clearly. What is it that Superfund is to accomplish, how long should it take, how much ought it cost, and who should pay for it? EPA needs to better recognize that Superfund is a long-term program and establish an infrastructure to support it--including long- and short-term goals, and a reliable, comprehensive management information system.

Two of our reports bear on this subject. In December 1987 we estimated that up to 425,000 sites nationwide may need to be

evaluated for Superfund action.⁶ Presently, EPA's principal Superfund information system lists about 31,000 sites for evaluation. Our estimate indicates that the hazardous waste site problem is potentially many times larger than has so far been recognized. We believe this issues raises the question about the appropriate federal role in the national cleanup effort. EPA, however, had not actively sought information on the sites that are not recorded in its data base.

In our view, better information on these sites is essential to defining what should be Superfund's scope, its budget, and its goals. The government needs to decide how much of the nation's hazardous waste site problems should be EPA's responsibility and how much time can safely be taken cleaning up these sites. Then, reasonable performance goals can be established for Superfund.

Our November 1988 report on EPA's failure to meet most of the deadlines specified in the Superfund reauthorization act shows that EPA needs to better focus its efforts toward meeting congressionally mandated goals.⁷ Largely because it was dissatisfied with Superfund implementation, the Congress wrote almost 80 deadlines for EPA action into the 1986 Superfund reauthorization act. At the request of this Subcommittee, we examined EPA's record in meeting many of these deadlines and found that EPA had missed most of them in part because it had not managed its activities to meet them. In fact, when we started our review, we had to research the reauthorization act ourselves to catalogue the deadlines because EPA did not know how many there were. We recommended that EPA improve its information system for tracking

⁶Superfund: Extent of Nation's Potential Hazardous Waste Problem Still Unknown (GAO/RCED-88-44, Dec. 17, 1987).

⁷Superfund: Missed Statutory Deadlines Slow Progress in Environmental Programs (GAO/RCED-89-27, Nov. 29, 1988).

its progress toward meeting statutory deadlines for top management's use in promoting compliance with these deadlines.

This concludes my summary of recent GAO work on the Superfund program. I would like to turn now to EPA's report.

GAO COMMENTS ON EPA'S REPORT

Overall, EPA's report is a frank and constructive self-evaluation of the Superfund program. For this ambitious study, EPA listened to the criticisms of many different groups and proposed a host of recommendations to correct the problems. Because the report was not issued during our review, we analyzed the most recent draft reports and discussed them with the EPA official in charge of the review. Many of the report's recommendations represent a new effort to implement the 1986 Superfund Amendments and Reauthorization Act (SARA). For example, the report's emphasis on enforcement mirrors the emphasis that SARA placed on using enforcement tools--inducements as well as penalties--to get Superfund sites cleaned up. The report also calls for improving two other SARA initiatives--technical assistance grants for the public and a program to develop innovative technologies through site demonstrations. If implemented, the report's recommendations should improve Superfund's effectiveness. The EPA official in charge of the report said that EPA's next step is to prepare a plan for implementing the report's recommendations.

In addition to expressing general support for EPA's report, I have some comments focusing on those segments that specifically relate to our prior work.

Contract Management

In the contracting area, for example, we have reported weaknesses in EPA's efforts to prevent conflicts of interest. EPA

recognizes such weaknesses in its report and makes several recommendations for improvement. EPA recommends requiring additional procedures for detecting and avoiding conflicts of interest and providing guidance for contractors.

However, we continue to be concerned about other contracting weaknesses, primarily in the area of cost control. In addition, EPA's Office of Inspector General has identified numerous weaknesses in Superfund contracting. In an earlier draft of its management report, EPA recognized the need for improvements in contracting, but the latest draft report has not developed specific recommendations. Greater emphasis on contract management, such as controlling contractor costs as well as conflicts of interest, should be included in EPA's agenda because of the large dollar amounts at stake.

Superfund Work Force and Enforcement

EPA's recommendations appear to begin to address two issues we identified in our reports--a capable work force and a strong enforcement program. In its report, EPA recognizes the problem of high turnover rates in Superfund personnel and recommends several actions to retain the staff, including pay increases and other incentives, such as more flexible leave policies and retention bonuses. However, as we mentioned earlier, the use of objective measurements would help EPA determine its work force needs. EPA also recognizes weaknesses in its enforcement program. Some of EPA's recommendations that we endorse include increasing the use of enforcement orders, more aggressive action to obtain information from responsible parties, and improvements in cost recovery.

Setting and Meeting Goals

EPA's report draft did not adequately address the issues of statutory deadlines or a comprehensive management information system. As this Subcommittee is aware, EPA has not been successful in these areas. We believe, therefore, that EPA's Superfund action plan should include a commitment to meet the deadlines the Congress established for the Superfund program. EPA should improve its tracking of progress on deadlines and work with the Congress on possible slippages. In addition, the Superfund information systems are not providing accurate information on the program. For example, they do not contain all sites that states have identified as potentially requiring cleanup nor do they provide full cost recovery information. Improvements must be made to the systems if EPA is to have adequate information on which to base its goals and make informed decisions.

Any discussion of goals must also focus on the allocation of resources. EPA recognizes in its report, particularly in the enforcement and remedial areas, that additional resources will be needed to improve the program. EPA does not plan to request additional funds, but rather will attempt to reassign its funds, for example, by increasing the number of employees and reducing contracted services. We support EPA's efforts to implement the report's recommendations within existing budget limitations if possible and believe that EPA should work with the Congress to determine the nature of and priorities for those reassigned resources.

At the time of our review, EPA had not completed an implementation plan with priorities, milestones, and followup. These elements will be essential to determine whether EPA's report will result in the changes expected.

Strong Leadership and
Management Support Needed

EPA must provide a realistic implementation plan and strong leadership if the Superfund report is to achieve its intended results. The size of the program, which costs almost as much as all of EPA's operating programs combined, requires this kind of effort, as does the persistence of problems that have plagued it, due in no small part to the complexity of the program itself.

In the absence of management commitment, problems can persist in programs despite recognition of them. For example, although for years EPA has been aware of the loss of revenue from not recovering indirect costs of the Superfund program, we believe the problem has gone unresolved because of insufficient management commitment to correct this situation. As a result, EPA, in its report, is just now recommending rulemaking to recover these costs. In the meantime, EPA will continue to lose revenue because it cannot go back to recover the indirect costs after it has settled with responsible parties.

EPA's report does not deal extensively with the organizational arrangement for Superfund, though in order to be sure that top management's attention is spotlighted on the program, some change in organization may be appropriate. Superfund currently resides in an office that handles several other major environmental efforts, including the Resource, Conservation, and Recovery Act (RCRA) program and the Underground Storage Tanks program. At the time Superfund was assigned to this office, it was expected to be a short-term cleanup program. Since that time, however, the program has grown significantly and is now recognized to be a long-term commitment that will last well into the 21st century. In addition, we have reported that the RCRA and storage tank programs have their own significant and unique problems. With so much of EPA's resources spent on the Superfund program and so many changes

looming, perhaps a separate Assistant Administrator for Superfund is needed. The Congress and EPA may want to consider the advantages of such a position.

CONCLUSIONS

The recommendations in EPA's report go a long way to improving a program that EPA recognizes is filled with problems. We would add that attention to cost controls in contracting, statutory deadlines, and a comprehensive information system would further improve EPA's plan.

We are hopeful that this fresh internal look at Superfund will result in a better program to clean up the nation's hazardous waste sites. However, insightful reports such as this one are sometimes shelved and do not always result in needed change. Therefore, we remain cautious about the ultimate outcome of this report. We stress that the report's recommendations for change will require a firm, continued, and concentrated commitment from top management as well as at the staff level. An Assistant Administrator for Superfund might provide the strong leadership necessary to bring about needed change without disrupting the cleanup progress.

Mr. Chairman, we would be pleased to assist the Subcommittee in its continuing oversight of Superfund as EPA implements the recommendations in its recent report. This concludes my prepared statement. I will be glad to respond to any questions that you or members of the Subcommittee may have.

ATTACHMENT I

ATTACHMENT I

RECENT RELATED GAO REPORTS

Superfund Contracts: EPA's Procedures for Preventing Conflicts of Interest Need Strengthening (GAO/RCED-89-57, Feb. 17, 1989).

Superfund: Missed Statutory Deadlines Slow Progress in Environmental Programs (GAO/RCED-89-27, Nov. 29, 1988).

Superfund: Interim Assessment of EPA's Enforcement Program (GAO/RCED-89-40BR, Oct. 12, 1988).

Superfund Contracts: EPA Needs to Control Contractor Costs (GAO/RCED-88-182, July 29, 1988).

Environmental Protection Agency: Protecting Human Health and the Environment Through Improved Management (GAO/RCED-88-101, Aug. 16, 1988.)

Superfund: Extent of Nation's Potential Hazardous Waste Problem Still Unknown (GAO/RCED-88-44, Dec. 17, 1987).

Hazardous Waste: Issues Surrounding Insurance Availability (GAO/RCED-88-2, Oct. 16, 1987).

Superfund: Improvements Needed in Work Force Management (GAO/RCED-88-1, Oct. 26, 1987).

HAZARDOUS WASTE TREATMENT COUNCIL



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TESTIMONY

RICHARD C. FORTUNA
EXECUTIVE DIRECTOR
HAZARDOUS WASTE TREATMENT COUNCIL

ON

THE STATUS OF SUPERFUND IMPLEMENTATION

BEFORE

SUPERFUND, OCEAN AND WATER PROTECTION SUBCOMMITTEE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U.S. SENATE

JUNE 15, 1989

Mr. Chairman, members of the Committee, I am Richard C. Fortuna, Executive Director of the Hazardous Waste Treatment Council ("HWTC"). The HWTC is the nation's largest association of technology-based firms committed to stringent controls on the daily management of hazardous waste and the permanent cleanup of Superfund sites. I welcome the opportunity to appear this morning and thank the Committee for calling this important oversight hearing on EPA's implementation of the Superfund program.

My testimony this morning will covering the following topics:

- o Preliminary results of our second annual review of the Superfund remedy selection process for RODs issued during FY 1988;
- o Compare the FY 1988 remedy selection trends to the findings of EPA's 90-day review and the Lautenberg-Durenberger Report on Superfund implementation;
- o Relate these reviews to EPA's recently proposed National Contingency Plan (NCP) Amendments to implement the 1986 SARA legislation; and,
- o Examine lessons for prevention when revising the RCRA program based on the FY 1988 review of Superfund cleanups.

The final results of our FY 1988 ROD review, which is being conducted in conjunction with six of the nation's leading environmental groups, will be finalized next month. Other preliminary findings in our report relating to the Superfund enforcement program, the role of potential responsible parties and remedy selection process, EPA's deferral policy, the need for consistent cleanup standards and technical assistance grants will be covered in complementary testimony presented by representatives of the Natural Resources Defense Council. Ms. Linda Greer, HWTC's Technical Director, is coordinating the preparation of this report and also assisted in the preparation of this testimony.

I. OVERVIEW

Based on our preliminary review of the FY 1988 RODs and the EPA 90-day review report being issued today we have reason to be optimistic about the future course of the Superfund program. The Agency is selecting treatment technologies more frequently in an attempt to achieve permanent remedies, more sites are reflecting cleanup standards based on national environmental statutes and the 90-day review contains a number of meaningful managerial changes to accelerate these desirable trends.

However, our optimism is tempered by several considerations including: the recurring use of capping and containment for totally inappropriate sites, consistent overestimates of costs for treatment technologies, and perhaps most significantly, a set of policies contained in the proposed NCP Amendments that thwart the goals of the 1986 Superfund Amendments pertaining to the emphasis on effectiveness rather than cost, the requirement to use permanent remedies and treatment technologies wherever practical, and the need for nationally consistent cleanup standards and waiver policies. We agree with the conclusions of the Lautenberg-Durenberger Report regarding the unlawful interpretations of the 1986 Superfund Amendments contained in the policies of the NCP proposal. Unless and until the policies of the NCP are changed to reflect the goals of the 1986 Amendments as it pertains to the role of cost, the use of treatment technologies and the need for nationally consistent cleanup standards the 90-day review will be little more than an academic exercise and the hope it portends will be dashed.

In addition to specific impacts in the Superfund program, our review of FY 1988 RODs reveals several lessons for prevention that should be incorporated into the RCRA reauthorization, particularly as it pertains to sanitary landfills and recycling facilities. The failure to impose meaningful preventive controls under RCRA for these type of facilities mean that they are now and will continue to be leading causes of future Superfund sites. The policy of exempting these practices from RCRA control in fact encourages the creation of yet additional Superfund sites through improper recycling and disposal.

II. INTENT OF SARA

This Committee and the Congress spent the better part of three years reauthorizing the Superfund law by enacting the Superfund Amendment and Reauthorization Act of 1986 (SARA). While expectations for the program differ, few can question the significance of SARA's fundamental changes to the remedy selection process or its emphasis on permanent remedy and national uniform cleanup standards. If the 1986 SARA reforms stand for nothing else, it is to put an end to the shell game of Superfund cleanups; cleanups that merely perpetuate and propagate new sites by attempting to cap and contain dump sites rather than instituting permanent technology-based remedies. In addition, since cost is no longer the sole or dominant criteria in the remedy selection, under SARA, the Agency must first determine the appropriate level of environmental protection to be achieved and then select a cost-effective means of achieving that end.

We supported SARA because of our commitment to stopping the Superfund shell game and ensuring that "cleanup" occurred properly in the first instance, rather than simply propagating

increasingly more expensive cleanups that repeat the same fundamental mistake: over-reliance on capping and containment. Our aim in producing this report is to build on last year's comprehensive review to identify trends and monitor for compliance with the new law.

III. SUMMARY OF SECOND ANNUAL REVIEW OF SUPERFUND RODS

The following will summarize the major findings of the second annual review of the 150 Superfund RODs issued during FY 1988. The principal issues to be addressed will be: the extent to which permanent treatment remedies were selected over capping and containment; the role of cost in the remedy selection process; the use of bogus or unreliable technologies; the emerging use of biotreatment; and, the extent to which treatability tests were used prior to remedy selection to ensure an effective and appropriate remedy selection.

A. Trends In Remedy Selection: More Treatment, But Many Problems Remain

1. Comparison Of FY 1987 Until FY 1988 RODs

In last year's report on FY 1987 RODs fully 68% of the Records of Decision (RODs) involved no treatment whatsoever, and another 24% used only token treatment or technology acknowledged to be ineffective by the Agency's own contractors. Six sites, or 8% of the sites examined, were honest attempts to implement the use of permanent remedies to the maximum extent possible. The Agency's policy remained as it was in 1981; cap and contain, rather than treat and permanently destroy. In addition, many decisions to reject the use of treatment were due to out-dated over-estimates of treatment costs and in certain cases even involved deliberate inflation of treatment costs for the sole purpose of rejecting a treatment remedy. In addition to the Agency's failure to use treatment remedies to the maximum extent practical, the standards or cleanup levels at Superfund sites reflect a continuation of past ad hoc practices, rather than relying on national cleanup standards that are contained in other environmental laws.

The FY 1988 Records Of Decision mark an improvement in EPA's remedy selection process over 1987. Our preliminary figures reveal that 52% of the 150 Records of Decision in FY 1988 involve the use of treatment technologies as a component of the remedy. This is in contrast to only 32% of the RODs in FY 1987 involving the use of any treatment technologies (*i.e.*, 24% using partial treatment and 8% using treatment to the maximum extent practical). The Agency estimates that 72% of the FY 1988 RODs involve the use of treatment. The majority of this discrepancy is due to the fact that EPA has included in this category sites that employ organic stabilization; a technique that has never

been demonstrated and even refuted by several SITE program demonstrations. There is also considerable variability among the EPA regions in the extent to which they use treatment. Preliminary analysis reveals that 25%-72% of all sites involved the use of treatment technology depending on which EPA region was surveyed. This again points the need for headquarters oversight to ensure consistency of the program.

2. Many Serious Problems Remain

Despite this modest sign of progress, there remains a disturbing number of indefensible remedies that completely ignore the permanent remedy and cleanup criteria of the 1986 Amendments in favor of capping and containment, bogus technologies and/or are decisions controlled solely by cost. Examples of this inappropriate reliance on capping and containment are typified by the BF Goodrich Site in Calvert City, Kentucky and Yaworski Lagoon Site in Canterbury Township, Connecticut. At BF Goodrich, lagoons containing high concentrations of organic contaminants are slated to be merely capped and contained after excavation of minor amounts of contaminated soils. Such high levels of organic contaminants will remain within the facility that the cap is specifically designed to enhance vapor recovery. The Yaworski Lagoon Site is a similar situation. A lagoon with high concentrations of solvents, other halogenated organic and heavy metal wastes is scheduled for a cap and contain remedy despite the fact that this facility is on the bank of a river that floods frequently.

We also see that capping and containment are themselves being increasingly referred to as permanent "technologies" in RODs.

B. Costs Remain The Controlling Criteria Of Remedy Selection

One of the trends that has continued from FY 1987 is that total costs, not minimum effectiveness, is the controlling factor in the selection of remedies. The most consistent and frequently used factor in remedy selection was the total cost of the project, in many cases virtually irrespective of the effectiveness or the reliability of that remedy.

In many other cases, the Agency continues to rely on out-moded, inaccurate cost information that significantly overestimates the cost of a permanent technology-based remedy. The most classic examples occur when the Agency attempts to rule out incineration on the basis of cost. Many of the Agency's cost estimates reflect commercial charges for PCB incineration 5 years ago and do not reflect the highly competitive, if not buyers' market, for remedial incineration technology.

For example, at the Yaworski Lagoon site the Agency's cost estimate of approximately \$800 per ton for on-site incineration is an over estimate by a factor of 3-4 fold of what is commercially available today. At the Prentiss Wood Preserving site in Mississippi, one of our member firms conducted the cleanup of approximately 10,000 cubic yards of creosote contaminated soils and completely restored the site for a cost of under \$200 per ton, even the highest bid on the Prentiss creosote site was \$560 a ton, not \$800. Moreover, there were seven separate bidders. I have attached to my testimony a summary of the Prentiss Wood Preserving site cleanup that was prepared by Enviro Corporation, the contractor for the Prentiss site. It reveals the timeliness and cost-effectiveness of this project and the permanence of the remedy that has been instituted. In virtually every site where incineration has been considered, the cost is over-estimated by at least a factor of two. Rather than taking advantage of the robust competition in the on-site incineration market, the Agency continues to use bogus data as a means to perpetuate bad remedies. This trend is reflected in other technology selections as well, but is best documented for incineration.

C. Selection Of Bogus Treatment - Organic Stabilization

One of the principal "technologies" that the Agency relied upon in the FY 1988 RODs was organic stabilization, techniques that merely bind, rather than destroy, organic wastes. We know of no technology that has been approved by the SITE program that effectively stabilizes organic constituents. In fact, the SITE program results have revealed the ineffectiveness of several organic stabilization techniques. Moreover, based on our 70 firm membership we are not aware of any organic stabilization technique that can bind organic constituents without leaching. Yet, this is one of the leading "technologies" that the Agency is relying upon. The major difference between the Agency's estimate of 72% sites involving treatment and our estimate that only 52% involve treatment are accounted for by the fact that our study does not count organic stabilization as an effective, demonstrated technology. Yet it continues to be one of the leading technologies selected by EPA and its contractors.

D. Biotreatment

Another clear trend from the FY 1988 ROD review is the Agency's increasing reliance on biotreatment at Superfund sites. We see this as desirable because certain forms of biotreatment can serve as either a stand alone or complementary remedy to other treatment technologies. However, "biotreatment" covers a very wide range of options from sophisticated enclosed systems designed to treat specific classes of constituents, to exceedingly crude techniques that are the functional equivalent of land farming.

Our principal concern with the trends in biotreatment is that there is no trend. There is neither guidance governing the types of wastes, sites, limitation, situations or units where biotreatment can be applied, nor criteria applied to measure effectiveness. Presently biotreatment is a wild card that is being over prescribed in certain situations and completely ignored in others. There are no objective criteria to guide the use of biotreatment to those situations where its capabilities can be optimized. The Council is preparing additional guidance criteria on sites and situations where biotreatment is most appropriate specifically focusing on the basis to evaluate whether actual constituent degradation is occurring or whether the technique is simply being used to volatilize other constituents into the environment.

E. Treatability Testing - An Absolute Requirement At This Stage Of The Program

One of the major failings that has been noted in the past is the Agency's failure to require treatability testing prior to selection of remedy. Treatability testing assists in making remedy selection decisions based on performance of representative technologies and aids in determining cost, timing, operational characteristics and residuals management issues of specific technologies. EPA should require the use of treatability studies to evaluate remedial technologies during the RI/FS process, unless such studies are clearly not required in a particular case due to previous experience with this type of site, waste and technology. This requirement should be clearly stated in the National Contingency Plan. EPA should direct that treatability studies must be included in the initial scope of work for the RI/FS. For current RI/FS's, revised or additional funding should be established. The appropriate type of treatability studies should then be conducted during the RI/FS process. At the RI stage, a number of screening type studies should be conducted concurrently of candidate technologies. These studies can be done for less than \$10,000 per technology. At the FS stage, bench scale treatability studies of a few number of specific technologies should be conducted. A pilot scale treatability test of a selected technology should be done during the later stage of the FS or during remedial design.

The information obtained through treatability studies should be included in the data base of the technology clearing house. EPA should issue more specific guidance and regular updates on the use and results of treatability studies to EPA project managers and contractors. Specific examples of how the treatability testing affected the quality of remedies are discussed immediately below. At the Charles George Reclamation site in Massachusetts organic stabilization was the selected remedy without any prior study or testing to determine whether

organic stabilizing agents even exist to treat the waste at that site. The ROD merely notes that a pilot study will be conducted later and that a suitable agent will be found. Similarly, at the Rocky Hill Municipal Well Field in New Jersey, the groundwater cleanup plan for organics was the selected remedy without any review of the available technologies or determinations on the optimal capabilities or range of groundwater treatment technologies. The ROD in effect leaves it totally to the discretion of subsequent decision makers as to which technology should be used.

In contrast, at the Old Bethpage Landfill in New York several technologies were subjected to treatability testing and a final pilot scale test was conducted on air stripping technology for contaminated groundwater at the site. It was determined, based on this pilot study, that this specific technology was capable of achieving removal levels to comply with the maximum contaminants levels (MCLs) for benzene.

We simply cannot continue to use a pornography-based approach to remedy selection; we will know a good remedy when we see one. We need a more consistent and dedicated approach to testing of technologies at various sites to acquire the requisite experience to guide future remedy decisions and to optimize the capabilities of given technologies in various waste and site-specific situations.

IV. EPA'S 90-DAY REVIEW

In all the studies that have been conducted to evaluate the Superfund program, including the Lautenberg-Durenberger report recently issued by this Committee, virtually every aspect of the program has come under criticism and/or scrutiny; the quality of the decisions, inconsistency in the remedy selection, inconsistencies in cleanup standards, lack of manpower and training, etc. First and foremost, however, any progress in this program must be predicated on a change in policy; a policy change that recognizes, rather than rejects, fundamental changes contained in the 1986 Superfund Amendments and begins to incorporate those changes on a consistent basis.

This programs needs an Administrator that is committed to the program, it needs sufficient resources to achieve its goals, and it requires a fundamental change in policy and management of the program.

Based on recent developments at the Agency and the content of the 90-day review, it is my view that for the first time in the 9 years in this program we now have both an Administrator committed to the program, the resources necessary to carry it out and a fundamental recognition that policy and management changes are necessary in order to make this program a success. The 90-

day review is the first breath of fresh air that this program has seen since the ink dried on President Carter's desk. Many of the difficulties in this program are no doubt attributable to its massive scope, the lack of previous experience to assist in climbing the learning curve but, moreover and most significantly it has been hampered by a policy of fighting rather than implementing the statute; a policy that has used short-term cost as the key decision criteria ignoring consistent national cleanup standards and the need for permanent remedies.

The 90-day review, on balance, recognizes and acknowledges the criticisms of previous reports to implement many managerial changes to the program. To the extent that the 90-day review truly reflects a change in Agency policy regarding the Superfund program, for the first time in the history of this program we may be on the path to making this a program something we can look on with pride rather than merely look back on with chagrin.

These managerial changes contained in the 90-day review are necessary, but by themselves are not sufficient to ensure success. The strength of these recommendations lies in the implementation strategy contained in the National Contingency Plan Amendments. The impact of the NCP policies on the managerial changes contained in the 90-day review is discussed below. What follows is a brief summary of the key points of our agreement and remaining disagreement with the findings of the 90-day review.

A. Points Of Praise

- o Support the Agency's approach of controlling the acute threats immediately and make the worst problems at the worst sites the program's first priority, thereby approaching the program from an operable units standpoint or adopting a principal threat strategy. pp. 1-10, 1-11.
- o Support increased emphasis on treatment for a more permanent and effective cleanup consistent with statutory goals. This is the first explicit acknowledgement that this is a statutory requirement, p. 1-12.
- o Strongly support the use of treatability testing during the RI/FS process. While this requirement may lengthen the time of an RI/FS, treatability studies will strengthen the final decision and minimize disagreements over potential effectiveness of a remedy that often occurs in the absence of such data, p. 3-7.

- o Support the use of a prototype RI/FS and remedy selection models (generic remedies) for recurrent site situations such as municipal landfills, battery cracking sites, and wood treatment facilities, and others.
- o The Agency should develop an automated data base on Records of Decision to help regions track the types of technologies being selected and their performance.
- o The 90-day review also recognizes that some confusion has occurred as a result of the Agency's so-called 9 criteria guidance issued in July 1987, which identified 9 separate criteria to be addressed in a remedy decision but did precious little to identify which criteria takes precedence.

B. Points Of Concern

- o The assertion that the demand for treatment capacity exceeds availability and capability of existing treatment technologies is simply incorrect. There are dozens of units of all types, incinerators, phase separation technology, biotreatment units, carbon filters, air strippers all of which are sitting idle due to a lack of demand. In fact, many companies are actively opting out of the Superfund remedial marketplace due to the low standards that have been set by the preceding remedy selection process, p. 1-12.
- o We disagree with numerous references to the need for decentralization of the program, pp. 1-2, 3-17, 3-19, and 3-21. In fact, it is the decentralized nature of the current program that has caused it to be the incredible, unaccountable program. Contractors are overseeing contractors and the Regions are operating without Headquarters' oversight or coordination. This is at the root of the program's problems along with the lack of manpower to oversee and coordinate such decisions. Why should we have a technology czar to coordinate information on technologies and their utilization if no one at headquarters is even checking to see whether the regions are selecting capping as a "treatment technology" or to verify that cost estimates are reasonable and customary?

- o Contrary to the assertion that consistency of cleanups cannot be achieved, we believe that every attempt must be made to achieve both consistency of process and consistency of result. The process by which decisions are made should be consistent, but without headquarters review there is no way of checking for decisions that are significantly at odds with the goals of the statute or the Agency's policy. Consistency does not necessarily mean that each site must be cleaned up in an identical fashion or that the final cleanup level should be numerically identical wherever a given constituent found. What it does mean is that a consistent starting point is used (*i.e.*, ARARs) to establish cleanup levels and that some attempt is made to apply the waivers in a consistent fashion where appropriate to vary from those standards.
- o Regarding the statement that Headquarters cannot review every ROD, we are puzzled. Are we, OTA and GAO the only groups capable of conducting such reviews? How does the Agency have any hope of knowing whether these bold policy changes contained in the 90 day review have had any impact unless they do so? If EPA does not have the resources to conduct such reviews, who does?
- o While we agree with assertion that there is no major change needed in the overall structure of the program RI/FS/remedial design, etc. We believe it would be desirable to suspend the FS and take bids based on treatability studies on a trial basis to determine if this approach either expedites or improves the quality of remedy selection. At present, most FS information is assembled in a vacuum, without the benefit of hard data.

V. RELATIONSHIP OF PROGRAM REVIEWS TO THE NATIONAL CONTINGENCY PLAN PROPOSAL

While we are encourage by our own review of the most recent Superfund cleanup decisions and the managerial changes reflected by EPA's 90-day review, a significant question remains; how will the Agency reconcile the managerial changes proposed for the program in the 90-day review with the status quo policies of the proposed NCP Amendments? The 90-day review is no doubt a welcome breath of fresh air, and it even hints at policy changes regarding the roles of technologies to achieve permanent remedies. However, unless the NCP is amended to change its disregard for the 1986 Superfund Amendments pertaining to the role of cost relative to effectiveness, the need for consistent

national cleanup goals, and the new directive for permanent remedies, the 90-day review will be nothing more than an academic exercise. Unless the fundamental policies regarding cleanup goals, role of costs and the use of technologies are resolved in the NCP, the managerial changes proposed by the 90-day review will never see the light of day. The situation will be much like having a refurbished classic auto, that contains everything but an engine and transmission. The policy changes in the NCP are the engine in the transmission for change in the Superfund program. Without it we will be all gassed up with no place to go.

As the Lautenberg-Durenberger Report notes "The approach to the role of cost in the proposed revisions to the NCP is a misinterpretation of how Congress intended cost considerations to be used in selecting remedies. In fact, the NCP suggests a cost-benefit approach to selecting remedies, which is not authorized or consistent with the law (p. 57).

This and the many other NCP interpretations of SARA discussed in the Senate Committee report must be changed to ensure that the breath of fresh air contained in the 90-day review does not turn stale.

What is needed is a consistent approach to the remedy selection process regarding, the role of costs, the use of technologies as a means of achieving permanence, and the use of existing statutory standards as the starting point for establishing consistent cleanup levels.

There are several sources of possible tension within the statute: the directive to achieve permanent remedies through the use of technologies to the maximum extent practicable, to be cost-effective, and to meet cleanup schedules and goals have the potential to pose conflicting goals and priorities. There is a way to harmonize these potentially conflicting goals through what I would call a "principal threats strategy". That is, take the principal sources of contamination at a site (*i.e.*, the lagoon, pile, source of releases) and establish a cleanup target based on the use of ARARs and appropriate waivers. Use the best available technology at the earliest possible date on this unit. Combine that component with containment and/or a longer-term treatment remedy for the balance of lower-level contaminated soils at the site (*i.e.*, bioremediation, capping, etc.). The longer term component of the remedy would then be monitored for a specific period of time (*i.e.*, 5 to 10 years) after which, assuming no detectable migration of constituents from that unit, the site can then be declared a permanent remedy.

This approach targets our resources and best technology on the worst parts of the worst sites at the earliest possible dates; it allows the Agency to take credit for "cleanup" of the

highest priority public health concerns; it optimizes the use of not just one but a range of technologies; it allows for cost-effective use of different technologies so we do not face "all or none" situations involving only one technology; it recognizes the need for containment as a component of Superfund cleanup; and, it recognizes that cleanups are multi-year multi-stage activities.

VI. LESSONS FOR PREVENTION FROM THE SUPERFUND REVIEW -- SANITARY LANDFILLS AND "RECYCLING" FACILITIES

In addition to revealing trends in remedy selection and the role of various factors in the decision-making process, the review of FY 1988 RODs also points out several remaining weaknesses in the nation's other hazardous waste statute, the Resource Conservation and Recovery Act (RCRA) -- the statute that is intended to prevent the creation of additional Superfund sites by controlling current solid and hazardous waste management practices. In reviewing the FY 1988 RODs and the most recently-proposed additions to the National Priority List of Superfund sites, it is clear that sanitary landfills and hazardous waste recycling facilities in general comprise two of the leading, if not the largest, sources of additional Superfund sites. Of the 150 FY 1988 RODs, 27 were sanitary landfills and 20 were "recycling" sites. Of the recent proposed additions to the NPL, 14 were recycling facilities. The failure to pose meaningful preventive controls at sanitary landfill sites in form of either liners systems or restrictions on disposal, and the general policy of exempting hazardous waste recycling from Subtitle C standards that otherwise apply to TSDFs, are the principal reasons this new generation of Superfund sites.

The policy of exempting these facilities from preventive controls has, and will continue to add to the burden of problem sites unless and until the proper controls are imposed on these facilities. It should be clear that these issues that demand the priority attention in the upcoming RCRA reauthorization. While we cannot reverse the course of past practices, the ultimate environmental insult is the fact that the law intended to prevent the creation of Superfund sites is in fact the leading cause of new ones.

VII. OTHER ISSUES

A. The Capacity Assurance Process.

The 1986 Amendments contain a specific provision to encourage states to bring new capacity on-line to meet the demands of the RCRA and Superfund programs in their states, or run the risk of losing Superfund support. However, rather than structure the program to sanction recalcitrant states that fail or refuse to bring such capacity on-line, the capacity assurance process (CAP) has been perverted by rewarding states that erected

barriers to interstate to hoard their individual capacity rather than to expand capacity nationwide. This is one of the most destructive and counterproductive policies ever issued by the Agency. Under the CAP process, states are actually rewarded for erecting interstate barriers so they can demonstrate capacity within their state, even though they in turn create an artificial shortage in the region and/or nation due to the fact that every state does not have every type of facility. The Committee should examine this policy in detail, for unless changed, its utility to alleviate capacity shortage has been all but destroyed.

B. Conflict Policy for Treatability Testing.

The Agency's current policy regarding treatability testing dictates that firms which conduct treatability testing for a given site are automatically prohibited from even bidding on the actual cleanup. The stated purpose for this policy is to avoid a conflict of interest, to ensure that the firms that conduct the treatability testing are not automatically selected to conduct the remedy. This is a valid concern, but provided that all firms are subject to the competitive bidding process, how can a conflict arise? In effect, the firm doing the treatability testing only serves to qualify his competitors for bidding on the remedy should his test prove the technology effective. The Agency's policy is much like saying, the company that develops a vaccine that is proved effective is precluded from manufacturing it. Given the critical role of treatability testing at this stage of the program, this conflict policy must be resolved at the earliest possible date.



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Testimony of

NATURAL RESOURCES DEFENSE COUNCIL, INC.

on

Management Review of the Superfund Program

before the

Senate Committee on Environment and Public Works
Subcommittee on Superfund, Ocean and Water Protection

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The Natural Resources Defense Council (NRDC) is a national, non-profit environmental organization supported by more than 100,000 members and contributors. For the past decade, NRDC's attorneys and scientists have worked for effective management and cleanup of hazardous wastes. We have followed the implementation of Superfund since it was enacted in 1980, worked actively for passage of the Superfund Amendments and Reauthorization Act of 1986 ("SARA") and are currently monitoring EPA's implementation of those amendments. On more than one occasion in the past, we have expressed our serious concerns about various aspects of the Superfund program to this Subcommittee. We appreciate this opportunity to testify once again regarding Superfund implementation, and particularly about the results of EPA's recently-released ninety-day Management Review of the Superfund Program.

The work of the 90-day review team has felt like a breath of fresh air through the Superfund program. We commend the review team for an honest and intelligent attempt to analyze and deal with the problems facing the program. In our opinion, EPA has not in the past been willing to engage in the degree of frank self-criticism or careful consideration of public comment that the Report reflects, and we appreciate it. In this instance, the 90-day review team reached out to interested groups and, from our first reading of the Report, appears to have genuinely tried to address their concerns. While we differ with the recommendations of the Report in at least one crucial respect, regarding the way to improve the questionable quality of cleanups at enforcement

sites, the Report makes a number of important recommendations for addressing serious problems in the Superfund program. These recommendations will only have value, however, if the Agency commits to implementing them. We look forward to hearing the Administrator make such a commitment today.

Although the Report includes recommendations on a broad range of issues, we will confine our comments to three of the topics covered by the review: (a) achieving the overall goals of the program, (b) enforcement issues, and (c) technical assistance grants. We also offer brief comments on EPA's proposed "deferred listing" strategy, and append to our written testimony a copy of the comments on this issue that we submitted to EPA.

I. Overall Goals

The Report offers a thoughtful assessment of the goals the Superfund program was meant to achieve, and a reasonable plan for achieving them. Those goals include permanent cleanup of the worst hazardous waste sites in the country, application of stringent health and environmental protection standards to those cleanups, and expeditious attention to problem sites through aggressive use of a variety of enforcement and settlement tools.

One of the most important aspects of the Report is its recognition that the quality of cleanups should not be sacrificed in the name of speed. The Report recommends that EPA "control acute threats immediately" and deal with the worst sites and the worst problems first. But where threats are not imminent, and an

effective remedy cannot be designed or implemented quickly, the Report also strongly recommends that time should be taken to perform a protective remedy, rather than a quick and shoddy one.

Under the heading "Barriers to Meeting the Public's Expectations," the Report describes various competing considerations EPA believes are inherent in the public's expectations for the Superfund program. These include timely cleanup versus participatory decisions, decentralization versus national consistency, complete versus staged cleanup, fund versus enforcement lead in cleanups, and similar apparently conflicting concerns. See Report, pp. 1-4 to 1-8. However, we believe that one factor in the "competing expectations" equation is greatly overemphasized in the Report, and would like to correct any lingering misapprehensions about what the environmental community wants to see in the program.

The Report states that "the expectation of prompt cleanup often presses up against the need for full and responsive public participation in the cleanup process." Later, it states that:

The direction of SARA to attain at each site the highly protective health-based standards set under other statutes creates time and cost demands that often can be satisfied only at the sacrifice of another statutory objective, prompt and effective action at all sites listed on the NPL.

Report at 5 (emphasis in original).

Statistics such as numbers of sites remedied -- the "bean counting" factors -- received particular emphasis in the early days of Superfund. However, as knowledge about waste site

remediation has grown, everyone has had to modify their expectations. In many cases, significant obstacles, such as the need for extensive sampling and studies before remedies are designed, prevent swift cleanups. Where those studies are necessary, they should be performed carefully.

To be sure, citizen and environmental groups still criticize the Agency's glacial inertia. But this criticism is often directed at EPA with respect to items for which there appears to be no good reason for delay, such as erecting a temporary fence to prevent exposure at a site while remedial studies or long term remedies are carried out. On the truly tough cleanup decisions, most community groups will gladly exchange one year of delay for decades of assurance that the site has been remedied adequately.

This approach is consistent with the statute, which requires cleanups that protect human health and the environment, meet applicable or relevant and appropriate environmental standards, and use permanent treatment to the maximum extent practicable. We have criticized EPA's implementation of Superfund because it continues to produce ineffective, impermanent and inconsistent cleanups. Superfund will be very vulnerable to attack in the next Congressional reauthorization if it only produces a record of shoddy remedies. Thus, for both the nation's health and the health of the program, EPA must take seriously Superfund's stringent statutory commands.

We note that the Report does not place great emphasis on the issues of permanence, stringency and consistency in Superfund,

instead focussing on management issues. While we do not take issue with the focus of the Report, and acknowledge that the important management issues addressed by the ninety-day-review team can have significant effects on the quality of cleanups, we wish to stress that the "how clean is clean" issue is of primary importance to the environmental community, and that public perception of the program will not improve until the cleanups become more effective.

II. Enforcement Issues

Many of the recommendations in the Report concerning Superfund enforcement are familiar to NRDC. At a hearing before this Subcommittee in 1987, we flagged many of the same shortcomings in the enforcement program, most of which were attributable to the Agency's continuing reluctance to employ the full panoply of enforcement authorities contained in the statute. See Testimony of NRDC on Superfund Enforcement before the Senate Committee on Environment and Public Works Subcommittee on Superfund and Environmental Oversight, dated December 10, 1987. We are pleased that the 90-day Review identifies the same problems and recommends similar solutions. However, we believe that one glaring problem in the enforcement program will remain - and possibly grow worse -- even if the recommendations are implemented: undue PRP influence over the protectiveness of remedies. The following discussion first provides a brief overview of Superfund's statutory enforcement tools and EPA's

enforcement record, and then discusses the solutions offered by the Report.

The Statute

The Superfund statute¹ provides EPA uniquely potent enforcement tools through which it can convince and, where necessary, compel responsible parties to remedy sites without compromising the effectiveness of cleanups. The strict joint and several liability standard, the most important enforcement tool in the statute, "shifts the burden of pursuing recalcitrants from the Government to other potentially responsible parties." 132 Cong. Rec. S14903 (statement of Sen. Stafford).²

Section 106 of SARA allows the Agency to bring suits for abatement or to issue unilateral administrative orders in cases

¹. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), as amended by the Superfund Amendments and Reauthorization Act of 1986 ("SARA"), 42 U.S.C. §9601 et seq.

². The strict joint and several liability standard also serves important purposes outside the reach of EPA's Superfund cleanup program. In the words of the 90-Day Review,

The Superfund liability standard has also provided a powerful incentive for businesses, Federal facilities, and local governments to properly manage their wastes. Additionally, the threat of potential Superfund liability has spurred businesses, particularly during property transfers, to conduct environmental audits and remediate environmental problems, not only for hazardous wastes but for environmental problems in general.

90 day review at 4.

of "imminent and substantial endangerment to the public health," directing PRPs to pay EPA cleanup costs or conduct the cleanup themselves. If an administrative order is violated, the violator risks fines of up to \$25,000 per day, sec. 106(b)(1), and/or treble punitive damages, sec. 107(c)(3).³

EPA's Enforcement Record

It is clear that EPA has not used the full range of enforcement authorities at its disposal since the enactment of SARA. Both the recent report by Senators Lautenberg and Durenberger and the 90-Day Review describe the many problems in the Superfund enforcement program. Indeed, the Lautenberg-Durenberger Report documents that in the 18 months since this Subcommittee last investigated the Superfund enforcement program, the Agency has done little to strengthen its enforcement posture. Although EPA points to statistics which appear to indicate a larger number of enforcement actions in the past year, the Lautenberg-Durenberger Report's analysis of the Agency's enforcement statistics shows that "the bulk of the case increases are either for consent decrees or for removals." Lautenberg-Durenberger Report at 127. Certainly, increases in the numbers

³. Section 106 administrative orders can only be challenged in court if EPA brings an enforcement action alleging that the order has been violated. PRPs face a heavy burden in an EPA enforcement action because they are limited to the administrative record developed by EPA, sec. 113(j)(1), and EPA's actions can only be overturned if shown to be "arbitrary and capricious," sec. 113(j)(2).

of all types of Superfund cleanup actions represent an improvement over EPA's past practice. However, the statistics also make quite clear that there has not been a significant increase in the number of §106 abatement actions or administrative orders.

The 90-Day Report recommends that EPA make more aggressive use of unilateral administrative orders and, where PRPs do not cooperate, aggressively seek relief through section 106 enforcement actions, section 107 cost recovery actions, and penalties and/or treble damages. The Report correctly states that aggressive use of these strong enforcement tools will have benefits beyond the cases in which they are actually used, because a credible threat that they may be used in any given case will help convince parties that negotiation, not obstruction and foot-dragging, is in their best interests. Getting parties to the bargaining table is of obvious importance, for EPA can neither clean up nor fully litigate responsibility for all of the NPL sites in the nation.

These recommendations are very important and should be implemented. They have been made before, however, with little perceptible effect. We are hopeful that this time, because they have been generated by an internal EPA review, there is a greater prospect of implementation than in the past.

Conflicts of Interest

Even if EPA committed today to an unprecedented campaign of

vigorous use of all of its Superfund enforcement authorities, the problem of conflicts of interest inherent in PRP-conducted remedial studies would remain as a major weakness in the cleanup program. In enacting SARA, Congress was acutely aware of the direct conflicts that may arise when PRPs perform remedial investigations/ feasibility studies (RI/FSS). The RI/FS is of central importance, for it determines the extent of contamination and evaluates potential remedies. Because protective remedies can cost millions of dollars more to accomplish than unprotective remedies, PRPs have far less incentive to look hard for contamination at a site or propose expensive remedies.

In recognition of this inherent conflict, section 104(a)(1) provides that an RI/FS may be carried out by a responsible party only when EPA determines that such action will be "done properly and promptly" and that the PRP is "qualified to conduct the RI/FS" Thus, EPA must determine a party's qualifications before delegating the RI/FS. The same provision also requires EPA to arrange for adequate oversight of the performance of the RI/FS.

Despite this provision, some Regions are using PRPs extensively to conduct RI/FSSs. Our preliminary review of the FY 1988 Records of Decision (RODs) indicates that PRPs conduct RI/FSSs far more frequently in some Regions than in others. The ninety-day Report recommends, as part of EPA's more intensive enforcement efforts, increased use of PRPs to perform these crucial studies.

Waste site groups have long opposed PRP performance of the

RI/FS because of the direct conflict involved. Indeed, there is reason to believe that PRPs are not performing RI/FSs adequately. Preliminary studies of RI/FSs indicate that PRP influence may be resulting in impermanent remedies. A coalition composed of a number of environmental groups and the Hazardous Waste Treatment Council are conducting a study of the FY 1988 Records of Decision (RODs), to be released in the late summer of this year. (The ROD is the document that describes and explains the remedy chosen for the site.) We eliminated municipal sites from our comparison, because treatment is often not appropriate at such sites.

The preliminary results of our study are not encouraging for the PRP-lead sites, where only 38% of the sites surveyed used treatment to any extent to remedy the source of contamination. Where EPA or the states took the lead, 61% of RODs chose some kind of treatment for source control. Senators Lautenberg and Durenberger and OTA have also reported indications that remedies at PRP-lead sites may be less likely to involve treatment of the source than remedies at EPA-lead sites.

These preliminary results are not surprising, for there are many ways to distort an RI/FS. For instance, PRPs have little incentive to perform a fully inclusive remedial investigation, and may often collect insufficient data or fail to consider secondary issues such as bioaccumulation or contamination of stream-bed sediments. These omissions can often lead to underestimation of the extent of contamination.

Risk assessments, which are an integral part of the RI/FS

process, are also inherently malleable. See EPA Office of Policy Planning and Evaluation, Program Evaluation Division, "Evaluation of the Preparation of Risk Assessments For Enforcement Activities," at 15 (September 1987). For example, identification and characterization of source, fate and transport variables are complex determinations which are often decided by judgment calls; these decisions are difficult to second-guess. Moreover, the 90-Day Report notes that "[a]ccording to nearly all Regional managers and staff interviewed on this topic, many PRPs try to economize and propose only the most minimal remedial action." Report at 2-20.

RI/FSs Will Not be Reliable Until the Conflicts are Removed

After careful consideration of the issue, we have concluded that EPA should generally not allow PRPs to perform RI/FSs. The conflict of interest is inherently great and in most cases is probably insurmountable. Although there may be exceptions to this rule, we do not believe that it is possible to determine which companies are exceptional, or that any amount of oversight can catch the wrongdoers. The means of distortion are too numerous and subtle. Moreover, the oversight process can be very wasteful: where EPA must step in because of inadequate PRP work, it must begin the work anew, and valuable time has been squandered.

As noted above, §104 of the statute requires EPA to

determine that parties are qualified before delegating the responsibility of conducting the RI/FS. In our view, the experience to date compels the general conclusion that PRPs should be disqualified from performing this crucial study. If EPA believes that it can identify exceptional companies which will truly conduct adequate studies, then the Agency should conduct its oversight of these companies strictly and suspiciously. Such oversight should include substantial stipulated penalties for poor performance, and a genuine threat that EPA will take over the RI/FS should shoddy or incomplete work become apparent.

Because some EPA Regions have already moved away from widespread delegation of the RI/FS, we do not believe that our recommendation would require a radical shift in policy or structure at EPA. A tough enforcement strategy can incorporate this approach by focussing on PRP financing of RI/FSs.

Although the 90-Day Report acknowledges the conflicts of interest inherent in PRP performance of RI/FSs, it suggests that the problem can be solved by heightened oversight, and notes that expanded community involvement may have a positive effect. However, we do not believe that any amount of oversight or citizen involvement will remedy the problem. The conflict should be removed.

Other Enforcement Problems

We have also found one instance of undue responsible party

influence over the terms of a consent decree, the document that incorporates settlements for PRP cleanups. Under §117 of the statute, if a consent decree differs in any significant respect from the Record of Decision, EPA must publish an explanation for the change. At the Rose Township, Michigan Superfund site, the consent decree filed with the district court rejected the relatively permanent remedy that had been selected in the ROD, incineration of approximately 50,000 cubic yards of contaminated soils, in favor of soil washing, an unproven and potentially ineffective technique. Because there were no changes in the site conditions between approval of the ROD and entry of the consent decree, and no major reconsideration of remedial alternatives for the site, it appears that the reversal resulted from negotiations with responsible parties.

Soil washing, a remedy whereby water is flushed through contaminated soil and then pumped and treated, was considered inappropriate for the contamination and hydrogeologic conditions at Rose Township at the time of the RI/FS, and was therefore rejected before it was considered in detail.⁴ Nevertheless, the

⁴. The 1987 RI/FS describes the Rose Township site geology as "a stratified sequence of sand layers, interbedded with lenses of silt and clay overlying glacial till believed to be laterally continuous beneath the site." Because the site has clay lenses interspersed in a complex and unpredictable fashion, the site is not conducive to the soil flushing remedy. These clay lenses may direct flush water away from the contaminated zones, preventing its collection by the water treatment system, and the lenses may disallow certain trapped organics from being captured by the flush water. See Comments of the Environmental Defense Fund and the Michigan Environmental Council on the Proposed Settlement Plan for the Rose Township, Michigan Superfund Site, October 27, 1988.

consent decree does not explain the reasons for EPA's reversal except to note that the soil flushing remedy will be subject to monitoring, and that the Agency plans to replace it with a more effective remedy if soil washing proves ineffective. Two environmental groups and the State of Michigan commented on the proposed consent decree, noting that there is a substantial possibility that monitoring will not provide information sufficient to determine the effectiveness of the remedy.⁵ The Rose Township reversal is a sobering reminder of the power wielded by PRPs, and of the numerous means by which a protective remedy can be undermined. The Agency should commit to a policy of filing consent decrees only where they conform to the ROD. Meaningful changes should be made only after the ROD is reopened, and the issues can be fully discussed and aired for public comment.

III. Technical Assistance Grants

The Report surveys EPA's current program of community involvement, and finds it lacking in many respects. Citizens feel shut out of the remedy selection process, the Report finds, and the Technical Assistance Grants program has awarded very few grants because of onerous requirements for applicants and

⁵. The monitoring of the remedy will consist of measuring remaining levels of contaminants in the flushed water after it travels through the contaminated soil. If clay lenses divert the flushed water away from contaminated areas, water exiting the soil may show no contamination, and may create the misimpression that the remedy has been successful.

recipients of grants. To remedy this situation, the Report recommends that EPA involve citizens more extensively in the process of making decisions about clean-up at Superfund sites, including innovative ways of bringing citizens and PRPs together to build a consensus; assure that citizens have access to the same technical information about the site that EPA and the PRPs have; and reform the Technical Assistance Grants program to eliminate barriers to their use. Report at 5-5. If implemented with vigor, these recommendations would go a long way toward meeting many of the concerns of waste site community groups. We recommend that the changes be implemented as soon as possible so that the TAG program can get moving again.

However, the Report does not address one major concern that has been expressed by community groups: the criteria for evaluating applications, which do not give sufficient weight to actual or potential health effects that may be suffered by the applicant groups. We believe that the criteria give disproportionately large weight to other factors such as the broadness of a group's representation, its plans for communicating with members, and its written plan for the technical advisor. As a result, a group with a more sophisticated application can receive a grant over a group that is less sophisticated but is actually more affected by a site. This shortcoming of the TAG criteria may be at the root of allegations that a waste-site group in Jacksonville, Arkansas, which may be awarded a TAG, is actually a "front" for a number of PRPs at a

site.

IV. EPA's Proposed "Deferred Listing" Strategy

In its recent, long-delayed proposal to revise the Superfund National Contingency Plan, EPA offered a proposal that resembles the era of Ann Gorsuch Burford and Rita Lavelle more than the ninety-day review process we have just witnessed. This proposal would defer application of Superfund -- i.e., the Agency as a matter of policy would decline to list sites on the National Priorities List or remedy them under CERCLA -- wherever EPA determines they can be addressed by other state or federal authorities, or by responsible parties who sign enforcement agreements. This deferral proposal expands on a policy already in place, whereby EPA declines to list sites that can be remedied under RCRA Subtitle C corrective action authorities.

We strongly believe that the proposed deferral policy is illegal and unwise. Congress required EPA to give priority attention to the worst sites under Superfund, not just to sites that cannot be cleaned up under other programs. The programs to which EPA is contemplating deferring -- state cleanup programs and state-run federal authorities such as RCRA Subtitle D (municipal landfills), RCRA Subtitle I (underground storage tanks), SMCRA (mining waste sites), and FIFRA (pesticide application sites) -- are at best unproven and unreliable (as in the case of state programs), and are at worst literally devoid of legal authorities to clean up hazardous waste sites (as in the

cases of SMCRA and FIFRA).

Deferred sites would lose the benefits of Superfund's uniquely strong provisions for strict, uniform cleanup standards; the statutory preference for permanent treatment; opportunities for technical assistance grants to affected citizens; and extensive opportunities for public comment. Moreover, deferring sites where responsible parties sign enforcement agreements is likely to further loosen oversight of responsible party site investigations and cleanups.

We submitted detailed comments on the proposed deferral policy to EPA during the comment period on the proposed rule. These comments are attached to this testimony.

IV. CONCLUSION

We appreciate this opportunity to testify on Superfund implementation. We look forward to implementation of the recommendations of the Report, and urge that the Agency consider our additional suggestions.

Statement
of
George L. Gleason
Chairman, Federal Action Committee
Hazardous Waste Action Coalition
before
Subcommittee on Superfund, Ocean and Waste Pollution
Senate Environment and Public Works Committee
June 15, 1989

I am George Gleason, Senior Vice President and General Counsel of NUS Corporation. I am testifying here today in my capacity as Chairman of the Federal Action Committee of the Hazardous Waste Action Coalition (HWAC). HWAC is a coalition within the American Consulting Engineers Council of nearly one hundred companies engaged in hazardous waste remediation for private or public clients, including the EPA. A statement describing HWAC more fully, and a list of its members is attached.

My testimony addresses Administrator Reilly's management review of the Superfund program report from the perspective of the private firms involved in hazardous waste remediation. Because the report has just been released, and we have had limited opportunity for review, I will limit my testimony to several issues of primary interest to HWAC members as they may be touched on in the Administrator's report or in other recent reports, including the comprehensive report recently released by this subcommittee. If the subcommittee desires that we do so, HWAC would be pleased to submit comments addressed specifically to the fifty recommendations for Superfund program improvement made in Administrator Reilly's report after our members have had an opportunity to review the full report in detail.

Administrator Reilly and his staff have performed a commendable public service in producing a candid assessment of the Superfund program and establishing a coherent policy and strategy for its future success. Recognizing that Superfund was borne in a crisis atmosphere with high public expectations for early success, the report appropriately characterizes the job of cleaning up the nation's

hazardous waste as a long term one which is at long last beginning to produce tangible results. "We agree with the report's conclusion that, "it is critically important to take the time now to review the experience of the last nine years, and to harvest the learning that will allow the Nation to make the best use of the Superfund program in the succeeding decades."

Noting that the program has been operating without the "benefit of the doubt", Administrator Reilly has called for a new, positive tone to be brought to the Superfund debate. The report has put in place a rational framework within which Superfund can move forward and achieve the mandates established in CERCLA and SARA, and result in a cleaner, safer environment for our nation. I hope the subcommittee will agree that the program -- and Administrator Reilly -- deserve that benefit of the doubt and will provide the time and support necessary to achieve those objectives.

Our view with respect to Administrator Reilly's report, as set out in the remainder of this statement, may be summarized as follows:

- Private firm participation in the Superfund program is essential. The technical, engineering, and scientific expertise they provide could not be replaced at any cost.
- EPA's need for additional resources is real. HWAC urges the Administration and the Congress to continue to increase EPA funding so that it can continue to accomplish the mandates of Superfund in an environmentally effective and cost efficient manner.
- The technical challenge of the remedial process is to implement effective environmental remedies while recognizing the inherent uncertainties involved. The **observational method** recommended by HWAC will expedite site cleanups and mean more environmentally sound results.
- The laws and regulations needed to avoid conflicts of interest are already in place. Clearer guidance to contractors on what constitutes conflicts of interest would be beneficial to the EPA and the contractors.

Superfund: The role of Private Firms

Private firms working for EPA or PRPs have provided technical, engineering and scientific support for the Superfund program since its inception. The important role of these firms was recognized in a recent report from the Congressional Office of Technology Assessment (OTA). This report described private firms as "highly professional" and concluded that their participation in "Superfund and other Federal cleanup programs will remain necessary." Nevertheless, it is clear that EPA and the other participating public agencies have the primary responsibilities for these programs. While the private firms provide the technical expertise required to do the cleanups, the government necessarily provides the policy and management guidance within which the programs operate. The government also ensures compliance with mandated laws and regulations, including federal contracting procedures.

The private firms that support the EPA on the Superfund hazardous waste cleanup program include hundreds of companies located in every state of the union. They range from some of the largest construction and engineering firms in the nation to small, local, entrepreneurial businesses. Included in this pool are a number of consulting engineering firms, and major construction companies whose primary activity is to support the Army Corps of Engineers in carrying out site cleanups.

The infrastructure that private firms have in place to assist in this national priority program could not be replaced at any cost. These resources include not only the talented and skilled professionals who perform the services, but the considerable capital investments required to support them in terms of equipment, vehicles and technology. In mandating a significant role for private firms in the Superfund program, Congress demonstrated considerable wisdom and avoided the inefficiencies and wastefulness of some earlier public programs. Use of private firms in support of public goals is part of a long national tradition. Moreover, this approach avoids the creation of expensive bureaucracies that continue to exist long after the need for them has passed.

While Administrator Reilly's report recognizes the continuing need for private firm participation in the program, a recommendation in a recent OTA report

could adversely affect and even postpone Superfund site cleanups. In particular, the OTA report recommends cutting contract spending by up to 50 percent, or about \$600 million. If implemented, such a cut could seriously hamper the program, as did the spending hiatus caused by the delay in the reauthorization of Superfund. This cut, roughly ten times as much as OTA recommends be added to the EPA budget, would serve only to delay site cleanups. Other recommendations in the OTA report also fail to recognize the necessary role that private firms play in Superfund cleanups and the benefits they have brought to it in terms of enhanced environmental and cost effectiveness objectives. Increasing EPA's resources to deal with its expanding responsibilities will strengthen the Superfund program and help achieve nationally mandated cleanup goals and schedules. Reducing the essential role of private firms in Superfund will not.

Need for Additional EPA Resources

One of the most significant findings of the Administrator's report is the need to enhance EPA's staff resources. Private firms participating in the Superfund program understand and support the need for a strong EPA staff to develop and implement government policies and manage their programs. While the agency's Superfund budget and staff have grown considerably over the last several years, so have the tasks they are being called on to perform. Private firms see on a daily basis the EPA staff's dedication and perseverance in carrying out its responsibility. In recognition of EPA's need for additional resources, the HWAC board of directors on March 16 adopted a resolution urging the Administration and the Congress to continue to increase funding to the Agency to provide sufficient budget and human resources to continue to accomplish the mandates of the Superfund program in an environmentally effective and cost efficient manner. The quality of the workplace environment should also be improved. A copy of our board's resolution is attached.

Improving Remedial Process

Administrator Reilly's report recognizes that the remedial process is the heart of the Superfund program, and recommends ways in which it might be expedited. The intractable challenge of hazardous waste remediation is that it is impossible to know everything that needs to be known about a site before remediation begins.

As the report notes, during the Remedial Investigation/Feasibility Study (RI/FS) investigation, site conditions can change, and previously hidden hazards can emerge. While the report recognizes that cutting the RI/FS process short to deal with these new problems would be a mistake, it explores ways to control imminently dangerous hazardous waste releases while these remedial studies are in progress.

HWAC companies are very familiar with the problem that EPA identifies here. (A recent HWAC publication, which I am providing separately to the Subcommittee, describes this problem in detail.) The complex and highly variable nature of hazardous waste sites present enormous challenges to our current technologies. The technical challenge is to implement effective environmental remedies while recognizing the inherent uncertainties of site assessment and remediation. The remediation must be conducted in a way that protects the public health and the environment, yet acknowledges that uncertainties regarding these sites will continue to exist. The situation also presents unique liability concerns to contractors. Given these conditions, the HWAC board of directors has endorsed the **observational method**, an approach developed for soils and foundation engineering by Karl Terzaghi, R. B. Peck, and others, as the appropriate method for hazardous waste site investigation, assessment, remediation design and implementation.

The key contributions of this method are the following:

- The site remediation design is based on the most probable site conditions,
- Reasonable deviations from these conditions are formally identified and accounted for,
- Parameters are identified for further observation in order to detect deviations,
- Contingency plans for each deviation are incorporated into the remediation design, and
- Post-remediation monitoring is established as an essential component of hazardous waste site remediation.

Adoption of the **observational method** will in the long run not only expedite site cleanup, but mean more environmentally sound results. Our board of director's resolution in support of this approach is attached.

We are pleased that we have had an opportunity for a dialogue with representatives of the study task force on ways to improve the remedial process and we look forward to further opportunities to work with the Agency in the improvement of this important aspect of the Superfund program.

Potential Conflicts of Interest

Administrator Reilly's report, along with several other recent reports, identifies potential conflicts of interest by contractors participating in the Superfund program as an issue that needs to be addressed. In particular, the GAO report issued last February concluded that EPA contracting officers failed to check for conflicts of interest, to accumulate statistics and documentation, and to provide guidance to Superfund contractors. The primary thrust of the report is not critical of contractor practices and admits that, according to EPA files, few cases of conflicts exist or have been reported. In fact, during the GAO's review, only two actual cases of conflicts were identified. Although the GAO did not specifically seek actual cases, the absence of such cases supports the basic integrity of Superfund contractors in avoiding conflict of interest situations.

Superfund contractors recognize and possess an inherent business interest in avoiding conflicts. In the hazardous waste industry, Superfund contractors have a significant incentive to avoid poor client relations caused by any conflict of interest situation. And as the GAO report pointed out, a lack of integrity within Superfund could jeopardize the entire program. The consequent loss of the program would be a disaster to not only the environment, but to the well-being of countless organizations and individuals.

Current Superfund solicitations and contracts, and other EPA regulations, include significant provisions designed to prevent conflicts of interest. These existing clauses include, (1) "Organizational Conflicts of Interest," (with certification requirement) EPAAR 1552.209-71 & 72, (2) "Screening Business Information for Claims of Confidentiality," EPAAR 1552.235-70, (3) "Limitation on Future Contracting," and (4) "Notification of Conflict of Interest Regarding Personnel." These provisions require Superfund contractors to certify that there are no relevant facts or circumstances giving rise to an organizational conflict of interest,

and to make full written disclosure if such a conflict is discovered after award. Submission of a false certification is a false statement under 18 U.S.C. § 101, and can result in fines or even imprisonment. The clauses also require contractors to make numerous disclosures regarding the nature of their work before collecting information, and to notify the EPA of any actual, apparent, or potential conflict of interest with regard to any individual within the contractor's organization.

EPA's contracts include a special EPA clause entitled "Limitation on Future Contracting," that makes Superfund prime contractors ineligible to complete for remedial planning and implementation projects offered by the private sector at sites within the regions covered by the contract, or for any project for which the contractor has developed the solicitation package. Moreover, a prime contractor may not, for a period of 3 years after the expiration of a contract, compete or represent a private party on any work pertaining to a specific site upon which the prime contractor performed under a Superfund contract. As a result of the existing contract requirements, contractors know they must be attentive to avoiding conflicts of interest.

As the foregoing makes clear, EPA already possesses adequate regulations, statutes and contract provisions to effectively control potential conflict of interest situations in the Superfund program. The measures announced in Administrator Reilly's report to provide clearer guidance to contractors on what constitutes conflicts of interest would be beneficial not only to EPA, but as well to contractors who are making a good faith effort to avoid such situations.

Conclusion

I have appended to my statement several position statements by HWAC that address issues related to the implementation of the Superfund program. These include a statement of Superfund program accomplishments, and a response to the OTA report of the Superfund program.

I appreciate this opportunity to appear before the Subcommittee and would be pleased to answer any questions you may have.

HAZARDOUS WASTE ACTION COALITION

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Technical consulting firms active in hazardous waste management face difficult questions in terms of liability exposures and regulatory uncertainties. Hazardous waste management is a relatively new discipline that has only begun to develop the scientific and engineering knowledge and the business practices needed to ensure that the nation can achieve its pressing environmental goals reliably, without placing undue burdens on hazardous waste practitioners.

The Hazardous Waste Action Coalition (HWAC) was formed by the American Consulting Engineers Council in 1985 to respond to these issues. Made up of hazardous waste technical consulting firms, HWAC provides a mechanism to pursue needed legislative and regulatory actions, to promote sound business practices, and to develop effective technical practices.

HWAC operates through a number of standing committees which address:

- o Federal and state government liaison and advocacy
- o Technical practices
- o Business practices
- o Risk management
- o Client liaison
- o Insurance and bonding
- o Health and safety training
- o Contract language
- o Quality management

These committees develop technical consensus documents, client-oriented brochures, educational materials, model contract documents, position statements for regulatory and legislative bodies, analyses of federal and state liability statutes, and risk management guides. HWAC's semi-annual general membership meetings provide an additional forum to develop and promote approaches to hazardous waste management that are technically sound, timely, and cost-effective.

HWAC is governed by a seven-member Board of Directors, elected by the membership. A team of professionals headquartered at the Washington, D. C. offices of the American Consulting Engineers Council provides staff support and coordinates the Coalition's work. Funding for HWAC's activities is derived from a sliding scale dues structure based on a firm's gross hazardous waste revenues.

Firms that provide technical consulting services relating to treatment, storage or disposal of hazardous or toxic wastes are eligible for membership. These technical consulting services include, but are not limited to, technical assistance, initial or remedial site investigations, feasibility studies, engineering, design, program management, construction observation and post-construction activities, in areas such as Superfund, RCRA, asbestos, LUST, preacquisition site assessments, mixed wastes, low-level radioactive wastes, community right-to-know and TSCA.

For further information contact: Hazardous Waste Action Coalition, c/o ACEC, 1015
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A Coalition of the
American Consulting Engineers Council



HAZARDOUS WASTE ACTION COALITION MEMBER FIRMS

AWD Technologies	ICF/SRW Associates
Aries Engineering, Inc.	Jacobs Engineering Group, Inc.
Ayres Associates	Jordan, E.C. Company
B & V Waste Science and Technology	Kamber Engineering, Inc.
BSK & Associates	Kellogg Corporation
Bechtel Environmental, Inc.	Kennedy/Jenks/Chilton Engineers
Beck, R.W. & Associates	Kleinfelder, Inc.
Brockenbrough, Austin & Associates	Law Environmental, Inc.
Brown & Caldwell	Lockwood, Andrews & Newnam, Inc.
Burns & McDonnell Engineering Company	Lowe Engineers, Inc.
CDM Federal Programs Corporation	Lozier Architects/Engineers
CH2M Hill	Malcolm Pirnie, Inc.
Chen & Associates, Inc.	McBridge-Ratcliff & Associates, Inc.
Chen-Northern, Inc.	McClelland Engineers
Consoer, Townsend & Associates, Inc.	Metcalf & Eddy, Inc.
Consulting Services, Inc.	Montgomery, James M. Engineers
Converse Environmental Consultants	NUS Corporation
Dames & Moore	NTH Consultants, Ltd.
Donohue & Associates, Inc.	Project Management Associates, Inc.
Duffield Associates, Inc.	RMT, Inc.
EA Engineering, Inc.	Radian Corporation
Ebasco Services, Inc.	Rizzo Associates, Inc.
EDP/Triggs Consultants, Inc.	Rizzo, Paul C. Associates, Inc.
ENGEO Incorporated	Ryckman, D.W. & Associates, Inc.
ERM, Inc.	SEA Consultants, Inc.
Earth Technology Corporation, The	SIECO, Inc.
Eldredge Engineering Associates, Inc.	SSM/Spotts, Stevens & McCoy, Inc.
Engineering, Design & Geoscience Group	STS Consultants, Ltd.
Engineers International, Inc.	Schaefer Dixon Associates, Inc.
Environmental Applications, Inc.	Schnabel Engineering Associates, P.C.
Environmental Technology Engineering, Inc.	Sirrine Environmental Consultants
Esmer & Associates, Inc.	Stewart Environmental Consultants, Inc.
GEI Consultants, Inc.	Stone & Webster Environmental Services
GME Consultants, Inc.	Storch Engineers
Gannett Fleming Environmental Engineers	Sverdrup Corporation
Geocon Environmental Consultants, Inc.	TGG Environmental, Inc.
Goldberg-Zoino & Associates, Inc.	Terracon Consultants, Inc.
Golder Associates, Inc.	Warzyn Engineering
HDR Engineering, Inc.	Westinghouse Environmental Services
HMM Engineers, Inc.	Weston & Sampson Engineers, Inc.
Haley & Aldrich, Inc.	Weston, Roy F. Inc.
Hanson Engineers, Inc.	Whitman & Howard, Inc.
Harding Lawson Associates	Woodward-Clyde Federal Services
Hart, Fred C. Associates, Inc.	Woodward-Clyde Group
Hart-Crowser Associates, Inc.	
Harza Environmental Services	
Holzmacher, McLendon & Murrell, P.C.	



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STATEMENT OF PRINCIPLES ON THE ROLE OF PRIVATE FIRMS IN THE SUPERFUND PROGRAM

Private firms participating in the Superfund program understand and support the need for a strong EPA staff to develop and implement government policies and manage their programs. While the agency's Superfund budget and staff have grown considerably over the last several years, so have the tasks they are being called on to perform. Private firms see on a daily basis the EPA staff's dedication and perseverance in carrying out its responsibility. Federal budget and salary constraints and competition from other high priority programs limit the additional funds that can be made available.

Some of the recommendations currently under consideration could, if implemented, adversely affect and postpone Superfund site cleanups. In particular, a recommendation in a recent report by the Congressional Office of Technology Assessment to cut contract spending by up to 50 percent, roughly ten-times as much as it recommends be added to the EPA budget, would serve only to further delay site cleanups. Other recommendations in the OTA report also fail to recognize the necessary role that private firms play in Superfund cleanups and the benefits they have brought to it in terms of enhanced environmental and cost effectiveness and the promotion of a variety of social and economic policy objectives. Increasing EPA's resources to deal with its expanding responsibility will strengthen the Superfund program and help achieve nationally mandated cleanup goals and schedules. Reducing the essential role of private firms in Superfund will not.

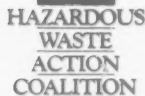
Accordingly, be it resolved, that the Hazardous Waste Action Coalition of the American Consulting Engineers Council urges the Administration and the Congress to continue to increase funding to the Environmental Protection Agency to provide sufficient budget and human resources to continue to accomplish the mandates of the Superfund program in an environmentally effective and cost efficient manner.

Be it further resolved, that government policy continue to recognize the essential role that private firms play in cleaning up hazardous waste sites and that reductions in funding for these important activities which would serve only to delay achieving nationally mandated cleanup goals and schedules be avoided.

Approved by Board 3-16-89



A Coalition of the
American Consulting Engineers Council



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STATEMENT OF PRINCIPLES ON THE OBSERVATIONAL METHOD FOR HAZARDOUS WASTE SITE REMEDIATION

The HWAC Board of Directors recognizes that the remediation of hazardous waste sites is a serious and urgent environmental problem. The high potential risks of hazardous waste sites and the high cost of remediation demand extraordinary precision and accuracy in the remedial work performed.

However, the Board also recognizes that the complex and highly variable nature of hazardous waste sites present enormous challenges to our current technologies. The technical challenge is to implement effective environmental remedies while recognizing the inherent uncertainties of site assessment and remediation, which include:

- o Characterizing the nature and extent of contamination,
- o Characterizing the subsurface environment,
- o Assessing the fate and transport of chemicals, and risks to human health and the environment, and
- o Applying the limited knowledge of remediation technologies.

Hazardous waste site remediation must be conducted in a way that protects the public health and the environment yet acknowledges that uncertainties regarding these sites will continue to exist.

Given these conditions, the HWAC Board of Directors endorses the observational method, developed for soils and foundation engineering by Karl Terzaghi, R.B. Peck, and others, as the appropriate method for hazardous waste site investigation, assessment, remediation design and implementation.

The key contributions of this method are the following:

- o The site remediation design is based on the most probable site conditions,
- o Reasonable deviations from these conditions are formally identified and accounted for,
- o Parameters are identified for further observation in order to detect deviations,
- o Contingency plans for each deviation are incorporated into the remediation design, and
- o Post-remedial monitoring is established as an essential component of hazardous waste site remediation.

Adopting the observational method for hazardous waste remediation will better prepare the scientists, engineers, policymakers and the public involved in decision-making to deal realistically with the technical uncertainties characteristic of hazardous waste sites.

Approved by Board 3-16-89



A Coalition of the
American Consulting Engineers Council

RESPONSE TO OTA REPORT

1. Congress needs to increase EPA resources for management of Superfund contracts.
 - The Hazardous Waste Action Coalition supports increasing the budget for EPA staff and overhead to help the agency cope with rapidly growing responsibilities under Superfund. This should be accomplished without significant reductions in ongoing cleanup efforts.
2. Private contractors receive 60% to 90% of Superfund spending.
 - At most, private engineering and construction firms account for 60% to 70% of Superfund spending. EPA administrative expenses require 10% to 20% of the total, while an additional 20% is spent on grants to states and non-profit organizations.
3. The budget for 'contractors' should be cut by \$400 to \$600 million per year.
 - EPA must rely on the expertise of private engineering firms and construction contractors to carry out actual cleanup work. Many Superfund cleanups have reached the critical stage where major excavation and treatment is underway. Cutting the budget for "contractors" as OTA recommends would reduce funding for cleanup by one-third to one-half, which would only result in program delays and higher costs in the long run.
4. Private party cleanups are much cheaper than EPA-led cleanups.
 - The OTA report grossly exaggerates the disparity between the cost of EPA and private party cleanups. No hard data is offered to support the assertions made in the report.
 - This "apples and oranges" comparison ignores the fact that, unlike private party cleanups, EPA's remedies must be designed to withstand challenges from responsible parties when the EPA later sues for recovery of costs.
 - In addition, private parties are more likely to voluntarily undertake cleanup at those sites where remedial costs are limited. EPA is often left with more technically complex, expensive cleanups for which private parties refuse to take responsibility.
5. EPA contractors have enjoyed substantial revenue increases due to Superfund work.
 - The profit margins in EPA cleanup contracts are not greater than those allowed in contracts with private parties for Superfund cleanup. In fact, as the OTA report recognizes, profit margins in EPA contracts are often significantly lower than for comparable work in the private sector for both Superfund and non-Superfund work.
 - Revenues for the engineering firms cited in the report have increased in part due to non-Superfund work in sectors such as transportation, water resources, and solid waste. Yet the figures cited in the OTA report do not distinguish Superfund from other engineering services.
6. Superfund cleanups are technically inadequate.
 - The OTA report uncritically accepts as evidence of poor quality the complaints of responsible parties, competitor firms, or other groups with a special ax to grind. Superfund cleanups are extraordinarily complex, and will occasionally be subject to "Monday-morning quarterbacking" by self-interested parties.
 - The EPA's award fee system penalizes contractors for poor performance.
7. The OTA report was not adequately peer-reviewed.
 - Some of the inaccuracies in the OTA report may be due to the fact that no time was allowed for adequate peer review. The request of some members of OTA's Technical Advisory Panel for a meeting to clarify the report's analysis was ignored, and the report itself does not reflect numerous comments provided by panel members.

Congress needs to increase EPA resources for management of Superfund contracts.

- o "The high turnover of personnel, one of the causes of understaffing, robs the program of an ability to develop a sufficient, experienced, core staff. The lack of a stable core of expertise prevents the program from attaining a high level of efficiency, and from routinely making sound, consistent environmental decisions."

(page 31)

- o "The problem is not just lower pay. The GAO report said that better advancement opportunities is the major reason that EPA personnel leave the Superfund program."

(page 33)

Private contractors receive 80% to 90% of Superfund spending.

- o "The Superfund program has over \$1 billion to spend in fiscal year 1989 to buy contractor and consulting services. That amount is 87 percent of EPA's Superfund budget of \$1.425 billion."

(page 11)

The budget for contractors should be cut by \$400 to \$600 million per year.

- o "To improve the near- and long-term environmental performance of the program, Congress can consider temporarily decreasing, for perhaps five years, annual Superfund spending for contractors by 30 percent to 50 percent (roughly \$400 million to \$600 million per year)."

(page 8)

Private party cleanups are cheaper than EPA-led cleanups.

- o "From looking at actual costs and speaking to contractors and companies which also use

contractors for their private cleanups, OTA concludes that it is not uncommon for the government to spend from 100 percent to 500 percent more than a private client would spend to accomplish the same site study or cleanup."

(page 7)

- o "Compared to cleanups managed by responsible parties, EPA probably pays lower unit costs (lower average hourly costs and lower profit margins) but other factors, leading to low efficiency and low contractor productivity, transform low unit costs into high total costs."

(page 7)

- o "From looking at actual costs and speaking to contractors and PRPs, we find it plausible that the government may spend from 100 to 500 percent more than a private client would spend to accomplish essentially the same site study or cleanup."

(page 42)

EPA contractors have enjoyed substantial revenue increases due to Superfund work.

- o "Indeed, data from annual reports for public companies active in the cleanup market frequently show growths in annual revenues of from 200 to 300 percent over the past five years from 1984 through 1988, with net incomes often rising at a much higher rate than revenues."

(page 11)

- o "Many contractors have experienced very high growth rates and increased profits over the past several years because of government Superfund business. This happened at a time when other engineering and construction markets shrunk."

(page 42)

Superfund cleanups are technically inadequate.

- o "OTA has illustrated quality problems, such as technical mistakes, use of inaccurate data, and poor quality control in its June 1988 report, Are We Cleaning Up? 10 Superfund Case Studies."

(page 27)

- o "OTA has examined a number of very lengthy critiques of EPA studies by PRPs or their contractors; these are as critical of the poor technical work being done for the government as was OTA's June 1988 study and a study by several environmental groups and a trade association."

(page 28)

SUPERFUND PROGRAM ACCOMPLISHMENTS

SUPERFUND IS ON SCHEDULE, AND BEGINNING TO DELIVER THE RESULTS PROMISED THE AMERICAN PEOPLE.

- SARA timetables require EPA to begin 275 remedial investigation/feasibility studies and 175 remedial actions between October, 1986, and October, 1989. An additional 200 remedial actions must be started by October, 1991.
- EPA's reliance on private engineering firms has moved the program more than 80% toward meeting the 1989 deadlines, and EPA expects to be ahead of its timetable by October of this year. Budget cuts would prevent timely completion of work already started, and would jeopardize attainment of the 1991 deadline.

RESPONSIBLE PARTIES ARE BEARING AN INCREASING SHARE OF CLEANUP COSTS.

- EPA's ability to conduct its own cleanup, and then sue responsible parties for recovery of costs, provides a strong incentive for settlement.
- Responsible party cleanups are increasing, and further budget cuts would only slow down that process. Private party cleanups will account for 55% of remedial actions to be undertaken in fiscal 1990 (compared to about one-third in fiscal 1988).
- In Fiscal 1988, the Superfund enforcement program had the highest number of settlements in any year, bringing the total to more than 500, with a value of more than \$1 billion.

EPA IS PROVIDING THE PROGRAM WITH POLICY DIRECTION AND MANAGEMENT; PRIVATE FIRMS OFFER THE ENGINEERING EXPERTISE AND "HEAVY LIFTING" NEEDED FOR ACTUAL SITE WORK.

- Private firms, sometimes referred to as "contractors," are essential to Superfund, as such firms possess the engineering and construction expertise needed for cleanup. It would be time consuming, expensive, and probably impossible to duplicate these services in the public sector.
- Superfund contracts with private engineering firms are awarded based on a highly competitive selection process. As documented in a recent GAO report, EPA has recently implemented programs to increase competition, strengthen management and oversight, and provide additional incentives for improved performance.
- The President's fiscal 1990 budget requests additional funding for EPA management of contracts at both headquarters and regional offices, and for enforcement activities that help to increase the number of responsible party cleanups.

THERE IS ROOM FOR IMPROVEMENT.

- While the Superfund program has made considerable progress, there is room for improvement. The Hazardous Waste Action Coalition supports increasing the budget for EPA staff and overhead to help the agency cope with rapidly growing responsibilities under Superfund. EPA, the engineering community, and others must continually search for more effective solutions. However, there is no "quick-fix", and no substitute for careful analysis, followed by engineering design and construction by private firms managed and controlled by EPA.

THE GOOD NEWS

EPA is meeting cleanup schedules ...

	10/16/88- 9/30/88	10/1/88- 9/30/89	3 Year Total	SARA 3 year Timetable	10/1/89- 9/30/90	SARA 5 year Timetable
RI/FS Starts	231	103	334	275	122	N/A
RA Starts	126	67	193	175	91	275

... while private party cleanups are increasing.

	Actual 1988	Current Estimate 1989	Estimate 1990	Increase + Decrease - 1990 vs. 1989
Remedial Investigations/ Feasibility Studies:				
Fund Financed	53	43	55	+12
PRP Response	48	60	67*	+7
Feasibility Designs:				
Fund Financed	39	61	75	+14
PRP Response	26	67	65	-2
Remedial Actions:				
Fund Financed	37	23	41	+18
PRP Response	21	44	50	+6

SOURCE: 42 U.S.C. 9616(d), 9616(e); EPA, Superfund Advisory (Summer/Fall) 1988), at 1; EPA, 1990
 Budget Request: Justification of Appropriations Estimates at 14-7, 14-8.

STATEMENT OF
WILLIAM K. REILLY
ADMINISTRATOR
BEFORE THE
COMMITTEE ON THE ENVIRONMENT AND PUBLIC WORKS
U.S. ENVIRONMENTAL PROTECTION AGENCY
UNITED STATES SENATE

JUNE 15, 1989

Mr. Chairman and members of the Committee, I am William K. Reilly, Administrator of the U.S. Environmental Protection Agency (EPA). With me today are Lew Crampton, whom I appointed chairman of the Agency review of the Superfund Program, and Jon Cannon, the Acting Assistant Administrator for OSWER. I am most pleased that Bill Child, President of the Territorial Waste Management Officials Association, has joined us today to express the views of our State Superfund partners on this effort. Mr. Child will also have a brief statement for the Committees.

During the Senate hearings held to confirm my appointment as Administrator of EPA, you asked me about Superfund's management and progress to date and, in particular, what I intended to do about improving Superfund's performance during my tenure as Administrator. Since I didn't then have sufficient first-hand knowledge of the situation, I promised you I'd immediately undertake as thorough a review of the program as could be completed in about ninety days. The result is the report in your hands.

THE REVIEW'S DESIGN: OBJECTIVE AND FAR-REACHING

In conducting this review, our objective was not to reexamine the program's underlying goals and objectives. Rather, it was to identify problems within the program, the approaches we should follow to resolve them, and administrative opportunities for increasing the pace, number, quality, and cost-effectiveness of cleanup actions we are taking at Superfund sites. More than 175 Agency staff participated in this effort, which was completed without the assistance of any contract resources.

The working premise of this review was that only through honest and objective reappraisal could EPA recognize problems and take advantage of opportunities to resolve them responsibly. Besides speaking with managers and staff members at EPA Headquarters and the 10 EPA Regional Offices and at several Superfund sites across the country, the task groups working on this project conducted hundreds of interviews with representatives from industry and environmental groups; with Congressional staff members; with staff from several federal agencies; with heads of state government and the National Governors' Association; and with citizens living near Superfund sites. We even arranged for a citizens' group from the contentious Uniontown, Ohio, Superfund site to come to Washington for a meeting with me and my staff. In short, this EPA team consulted everyone they could possibly think of who could help get the program on a more efficient, faster track.

In addition to these interviews, the Agency staff reviewed all 32 of the recently completed studies that are highly critical of the Superfund program, and closely read your committee's excellent joint report, "Cleaning Up the Nation's Cleanup Program." Although we were unable to respond to every one of your specific findings and recommendations, because your report was received just as we were wrapping up our review, we found your work most helpful, and we attempted to incorporate much of the substance of your thinking into our own recommendations. In fact, your report identified many of the same problems and proposed some of the same recommendations that appear in this report I am submitting to you today. We are most appreciative of your fine effort, and I want to assure you that we intend to study your report further and to use it as the basis for an ongoing dialogue with your Committee.

TEMPERING SUPERFUND'S GREAT EXPECTATIONS

For me, perhaps the most important finding of this review is the need to set and clearly communicate fair and realistic expectations for a program of the relative novelty and scope of Superfund. When the Superfund program was created in 1980, the challenge of what was assumed to be just a few hundred discrete, land-based cleanups appeared relatively easy to meet. Since

then, we've learned much about the difficulty, expense, and duration associated with cleaning hazardous waste sites to health-based levels.

For example, the cost of construction at sites currently on the National Priorities List is likely to be about \$30 billion, assuming that half the work will be done directly by the Fund and half by responsible parties. It will probably take about 13 years to begin construction on just those sites, and we expect to add about 75 to 100 sites to the list each year. Based on our current inventory, we expect the National Priorities List to grow to about 2,100 sites by the year 2000. Currently, the average cost of construction per site is approaching \$25 million, and there is every reason to believe that this figure will increase as some of EPA's more complex sites move from the study stage into the construction pipeline.

Similarly, over the past nine years we've experienced the many conflicts inherent in trying both to achieve the program's goals and to satisfy all the many constituencies affected by the program. For example, the expectation of prompt cleanup often presses up against the need for full and responsive public participation in cleanup decisions. Faster cleanup action may also argue for a generous degree of Regional autonomy, which implies some variability in decisions made at each of the Agency's ten Regions at the expense of consistent national program Administration.

The Superfund Amendments and Reauthorization Act's direction to attain at each site the highly protective health-based standards set forth under other statutes creates time and cost demands that often can be satisfied only at the expense of another statutory objective--that is, prompt and effective protective action at all sites listed on the National Priorities List (NPL). Current estimates (extrapolated from early, and perhaps relatively inexpensive cleanups) suggest that, despite the magnitude of the Fund at \$8.5 billion, it contains only a fraction of what will eventually be needed to achieve final cleanup at all currently listed sites. Even if more funds were available, however, EPA lacks sufficient expert staff, and the nation doesn't have enough qualified engineers, to take on a full-scale effort at all sites simultaneously. For the moment, we are saying that the program can pursue either complete cleanup at some sites, or incremental cleanup at many sites. It cannot fully accommodate both goals simultaneously.

And although aggressive enforcement will induce responsible parties to bear more of the resource load, it will do so only if the Fund itself remains sufficiently robust to pose a credible resource for direct Federal actions. For this reason, the use of enforcement to multiply Superfund's effect also argues against pouring out the Fund in a full-scale attack on too many sites simultaneously.

THE RECORD TO DATE:

Compounding the problems of unrealistic and competing expectations, EPA has failed to communicate to the public the program's many successes--for example, in reducing immediate risks to human health and the environment through the emergency removal program.

Many have judged the success of Superfund by the number of sites deleted from the National Priorities List. Currently that number is 26, with another ten sites newly clean and soon to be removed. While that number reflects some substantial recent progress, it is still below initial projections.

Evaluating Superfund by tallying site deletions, however, is not only discouraging, it is inherently misleading. For one thing, deletion is the very last step in a multi-stage process. Before deletion, EPA monitors sites long after they have met cleanup standards to ensure that those standards remain in effect. Given the long-term nature of the problem, the number of early cleanups may be an indicator only of how few sites are physically capable of being cleaned and verified so quickly. The figure may in fact say more about the intractability of pollution at most sites than it does about the success of Superfund.

Success for Superfund is more appropriately measured in terms of the successive, interim steps that quickly provide a margin of safety for local residents. By this standard, EPA is slowly gaining momentum.

For example, EPA has met SARA's deadline to complete an additional 4,700 preliminary site assessments. EPA has conducted emergency removals to attack the most immediate sources of toxic exposure at more than 1,300 sites, and has begun long-term remedial work at more than 400 locations. EPA also beat SARA's ambitious deadline for 275 new starts on remedial investigations and field surveys, and is on schedule to meet the goal of beginning remedial action at 175 new sites by mid-October. While the Agency has had problems with meeting deadlines in the past, we continue to manifest a respect for the deadlines Congress placed in the Law and expect to do a better job in the future.

As for enforcement, since SARA's passage in 1986, approximately \$1 billion worth of site work has been initiated under enforcement action and settlements. In fact, at this time, roughly half of Superfund's on-site work is being conducted by responsible parties under some form of enforcement action by EPA, and this proportion is expected to increase over time.

Finally, few people realize that the environmental benefits of Superfund go well beyond Superfund cleanups. Since the program's creation, many States have enacted their own laws for cleaning up hazardous waste sites. And the Superfund liability standard has provided a powerful incentive for businesses, Federal facilities, and local governments to properly manage their wastes.

Though this is an impressive record, it is obviously not enough. Even given the necessity for steady, incremental progress--as opposed to "miracle" cures which cannot be sustained within the Superfund program--few believe EPA is doing as much as it can, as well as it can, or as fast as it can to move that progress along. EPA acknowledges the validity of that assessment and vows to do better with the support of Congress and the American people.

A CLEAR STRATEGY FOR SUPERFUND

Since EPA is formally entrusted with public stewardship of the Superfund program, it depends entirely on the American people's genuine trust and support to carry out that mission. To earn the trust necessary for Superfund's success, EPA must clarify, communicate, and gain broad acceptance for the basic strategy it will use to carry out the program.

The essence of this strategy is that Superfund is being redirected to be an "enforcement first" program. Our objective is to get responsible parties to do the majority of the cleanups. This means that EPA will aggressively use the coercive enforcement tools at its disposal, while at the same time expanding its use of the settlement tools that are also available in the law. We will move to quickly get enforceable cleanup agreements with the responsible parties or failing such cooperation, immediately order them to conduct work. At the same

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time, we will continue to conduct removals and to maintain a vigorous program of government conducted cleanups so that use of the Fund (and consequent cost recovery actions) are a credible spur to private cleanup. We will promptly pursue private parties to recover the Fund costs.

The program strategy proposed in this report makes it possible for us to attack the principal threats first, removing the source of immediate hazard in a logical and systematic manner, and then turning to sources of remaining long-term risk on a priority basis. Here we are squarely confronting the need to set a deliberate pace toward final remediation of residual problems that pose less immediate risks than those commanding nearer-term action. In this way we are articulating a clear direction for how we will manage the Fund's resources over the long term to achieve the greatest degree of environmental improvement possible from a combination of public and private resources.

Although little in the strategy is literally "new," since most of the principles had already begun to drive the program in recent years, this is the first time EPA has offered them as its own comprehensive statement of program philosophy.

While the body of the report provides necessary detail, in brief the strategy embodies the following elements:

Make Sites Safer--Control Acute Threats Immediately

EPA's first priority under Superfund is to render hazardous waste sites stable and to eliminate any immediate danger to citizens. Under this "safety first" dictum, sites presenting the most acute risk to human health will receive the earliest and most aggressive action.

Effective immediately, I will direct each Regional Office to do a removal assessment at each site on the National Priorities List where this has not already been accomplished. This assessment will be used to determine what action must be taken to render each site safe from immediate hazards to public health and the environment. Such action could include immediate fund-financed removal action or enforcement action where viable and liable responsible parties have been identified. EPA will be in the field fast, sizing up the scope of the problem and doing what is necessary to ensure the site is made safe in the short term. Information gathered from the site assessment will be added to establish priorities for longer-term remedial action necessary to complete cleanup.

Make Sites Cleaner--Worst Sites, Worst Problems First

After abating immediate hazards, EPA will conduct the earliest remedial work for the remaining principal threats at the highest priority sites across the nation. We will typically plan

action at each site in deliberate stages to provide additional or longer-term improvements toward final cleanup.

Carefully Monitor and Maintain Sites Over the Long Term

EPA will not walk away from its obligation to protect human health and the environment at every NPL site. We will carefully monitor and maintain sites over the long term to ensure they stay safe. If we select a remedy where hazardous substances remain on-site, we will do a formal review of the situation at least every five years after the initiation of the remedial action. Based on that review, we will take action at the site if necessary to protect human health and the environment. We will report annually the results of all five-year reviews that were conducted during the preceding twelve-month period. We will modify current policy so that no site will be deleted from the NPL following a final cleanup where residuals remain, even though it meets health and environmental goals, until at least one five-year review is conducted and the review indicates that the remedy remains protective of human health and the environment.

Emphasize Enforcement to Induce Private-Party Cleanup

EPA will emphasize enforcement to induce potentially responsible parties (PRPs) to carry out more cleanups under EPA's direction. Our objective will be to either rapidly achieve enforceable agreements by PRPs to carry out cleanups that meet

health and environmental goals or, where such agreements are not reached, to order PRPs to carry out cleanups at every NPL site where responsible parties can be found. In doing so, we will expand both our use of coercive enforcement measures and our use of more flexible settlement procedures provided by the 1986 amendments. PRPs choosing to undertake protective cleanups, even under threat of enforcement action, can expect cooperation from EPA to move from planning to field remediation as quickly as possible.

Develop and Use New Technologies for More Effective Cleanup

To ensure cleanups provide long-term protection of human health and the environment, EPA will use permanent remedies where possible and will aggressively seek innovative treatment technologies that reduce the toxicity, mobility, and volume of wastes at Superfund sites. To accelerate the use of promising experimental treatment methods, EPA will initiate a more far-reaching and comprehensive program of technical assistance and support to those evaluating and selecting site remedies.

Improve the Efficiency of Program Operations

While the nature of the Superfund program militates against shortcuts, EPA will simplify some costly and time-consuming procedures at many sites without loss of programmatic quality or completeness. In addition, our site managers will seek greater

procedural efficiency and programmatic effect by employing a "One Program" concept. This means we will match the most appropriate cleanup tools available to the environmental problems to be corrected, regardless of whether the project is being managed through the Fund or under an enforcement settlement.

Encourage Full Participation by Communities

We will re-energize our outreach to encourage broad-scale public information and involvement in program decisions, and we will pay specific attention to involving the community in selecting protective remedies in the growing number of projects conducted by PRPs under enforcement settlements. We need people directly affected by the program to share in realistic expectations, and to help us reach appropriate, cost-effective cleanup decisions that achieve health and environmental protection goals.

Foster Cooperation with State Agencies and with the Natural Resource Trustees and ATSDR

We recognize that others--especially the States ATSDR, and the Natural Resource Damage Trustees--have significant roles to play in the Superfund process. In addition to implementing the recommendations in this report, one of EPA's principal goals is to build a solid relationship with the States, the Trustees and ATSDR to ensure that the Superfund process is working as efficiently and cooperatively as possible.

MAJOR FINDINGS AND RECOMMENDATIONS

The Superfund Management Review was carried out by a Task Force of agency employees and divided into several tasks, each designed to uncover the facts and recommend improvements. What follows are the major conclusions of that work and recommendations made to me by the Task Force.

Strengthening Enforcement.

EPA's major thrust will be to increase cleanup actions by Potentially Responsible Parties, so as to achieve the greatest possible environmental benefit from the Superfund.

Section 106 of the Superfund statute authorizes EPA to compel responsible partners to undertake cleanup, and creates the basis for subsequent collection of treble damages against recalcitrants in the event of Fund-sponsored action. The use of these authorities instills credibility in the threat of enforcement as a stimulus to voluntary settlements. The Task Force recommends that EPA markedly increase its use of such unilateral authorities as Section 106 unilateral administrative and judicial orders and Section 107 cost recovery punitive damages actions. SARA contains several provisions that allow EPA to employ settlement conditions to help ensure fair treatment of PRPs in light of the environmental problem and the terms of

cleanup. EPA needs to develop an incentive system to encourage its Regions to make more effective use of these provisions, especially de minimis and mixed-funding settlements. In both the structure of the settlement terms and in its pursuit of enforcement, the government will clearly establish incentives to encourage these PRPs who are willing to assume responsibilities and disincentives for those who are not.

In the past, EPA has tended to segregate sites by designating some as "Enforcement-lead" and others "Fund-lead." In the future, EPA must operate an integrated program, combining staff and technical resources to obtain the best results, no matter which administrative mechanism proves more appropriate.

The threat of cost recovery is an essential factor in motivating PRPs to undertake voluntary action. However, a number of legal and administrative problems make cost recovery complicated and time-consuming for EPA to pursue. EPA must set realistic targets and undertake rulemaking to inject more simplicity and predictability into the cost-recovery process, and thereby increase the revenues needed to replenish the Fund.

EPA should also undertake a procedural review with the Department of Justice, as well as a review of its own internal Superfund organization, to identify and eliminate obstacles to the efficient management of the enforcement function.

Accelerating and Improving Remedial Action.

Although steady, productive remediation is at the heart of the Superfund program, there are numerous organizational, administrative, and technical barriers to efficient management of the remedial program. The Task Force recommends that EPA undertake a variety of small but cumulative steps to accelerate remedial construction work, strengthen remedy selection and improve national consistency in the program through better oversight.

One step that can be taken to begin cleanup sooner at certain sites is to break them down into operable units to facilitate fast action on the principal threats while longer term action plans are developed. EPA should also seek to consolidate experience at similar sites by developing prototype RI/FS and remedy-selection models.

To promote consistency in remedy selection and emphasize permanent solutions, EPA should undertake a comprehensive program of review and coordination to provide peer review,

prompt feedback, and alignment of remedy selection across Regions. Of particular importance is guidance on the use of Applicable or Relevant and Appropriate Requirements (ARAR), especially those promulgated under RCRA.

To accelerate remedial action in the field, EPA should expand the practice of using removal contracts to undertake longer term action when appropriate.

To reinforce technical skills and experience needed among Remedial Project Managers in the Regions, as well as to propagate information on emerging treatment technologies, EPA should undertake an aggressive program of technical support. This would include enhancing the role of Regional Coordinators assigned to anticipate and respond to requests for information and advice. It would also require improving the depth, detail, and accessibility of technical databases provided to support Remedial Project Managers in site management, and follow up reviews by headquarter staff of remedy selection decisions made in the Regions.

Bringing Innovative Technology To Bear on Pollution

There are not yet enough proven technologies to treat the wide range of wastes and site conditions Superfund encounters. New developments are slow to find acceptance in the Agency, which

must take a close look at the barriers it has erected to the introduction of treatment technologies at Superfund sites. To ensure that a wide range of reliable, cost-effective treatment technologies is available for Superfund cleanups, the Task Force recommends that EPA undertake an aggressive technology demonstration program. EPA must emphasize the use of treatment technologies in early actions to mitigate significant threats at sites, as well as in later actions to clean up sites. Such a program would strengthen and expand necessary technical support to the field, discussed above.

EPA's Office of Research and Development (ORD) must undertake an aggressive program of research, development, demonstration, and evaluation of new treatment technologies for Superfund sites. In particular, ORD needs to revise and expand the Superfund Innovative Technology Evaluation Program to demonstrate and evaluate a broader range of innovative and emerging treatment technologies, and to provide more rapid dissemination of results to research managers.

EPA must also take positive steps to reduce regulatory and policy constraints to the introduction of alternative treatment technologies. Areas that need particular attention are the tension between SARA's cost recovery goals

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and selection of innovative treatment technologies; and current implementation of the Federal Acquisition Regulation.

The Office of Solid Waste and Emergency Response should create a "Technologies Czar" within the program to coordinate the dissemination and evaluation of alternative treatment technologies for Superfund and RCRA.

Reinvigorating An Aggressive Program of Community Involvement

Citizens see a fundamental inequity between their role in Superfund and that of PRPs. In citizens' eyes, PRPs have access to information, substantial control over site evaluation, and resources to fight for positions they want. EPA must give citizens a much greater role in the Superfund program, especially at PRP lead sites.

Citizens need to know their input counts, that they can affect decisions, not merely make their concerns known. The Administrator should strongly support increased citizen involvement by instructing Regional managers to factor sufficient time for citizen participation into project plans, and by indicating a willingness to tolerate some delays in decision-making when needed to ensure adequate consideration and response to citizen concerns.

EPA should increase the frequency and directness of communication with citizens. While there are many ways to do this, Regions should, where appropriate, experiment with the use of "Senior Environmental Employees" (technically proficient retirees hired through such organizations as the American Association of Retired Persons) to represent the Agency on a regular basis at sites geographically distant from the Regional Office.

EPA should share information with citizens as it does with PRPs. The Agency should also find ways to include citizens in technical design meetings with PRPs, or in other situations that build trust through an open process.

The Technical Assistance Grants Program, intended by Congress to support citizen access to expert consultation, is not working well and the level of interest is lower than expected, apparently due to regulatory and implementation barriers. The Task Force supports steps to make TAG grants simpler to apply, administer and account for. EPA has already started to make regulatory and procedural changes to reduce the local match requirement for TAGS from 35% to 20%, defer the requirement for a detailed budget until after

award, and simplify the procurement and accounting requirements to reflect the informal organization represented by the grantee.

Management and Administration: Freeing Up the Tools to Do the Job

Retention of capable and experienced personnel is critical to the success of Superfund. The Task Force encourages EPA to take aggressive, even dramatic action to ensure the right people are available to do the most important work.

Turnover among key field technical and legal staff is unacceptably high. EPA's compensation system is simply not competitive with private-sector systems. The Agency should immediately raise the career ladder cap for Regional Program Managers and On-Scene Coordinators from GS 12 to the GS 13 level, and take steps to develop the necessary justification for raising Regional Superfund Enforcement Attorneys from GS 13 to GS 14. The Agency must also explore other potential mechanisms to retain staff, such as making salaries more competitive with the private sector in high-cost geographic areas, accelerating promotions, awarding retention bonuses, designing flexible annual leave and working hour policies, or offering early retirement rights.

The Agency must act on the finding that key field staff now spend about 25% of their time on administrative tasks that could be properly delegated to other Regional staff, including clerical staff. EPA needs to establish a Superfund Administration Committee to ensure that all needed equipment and support services are readily available for the convenient use of field personnel.

EPA needs to substantially expand the formality and accessibility of training for its field personnel. Shrewd use of training can bring about substantial improvements in knowledge and skills at all levels of site management work: basic, intermediate, advanced, and master.

EPA must avoid conflicts of interest that arise because of assignments to Contractors to do both policy and site construction work. In particular, EPA should ensure that contractors do not make policy decisions. Efforts to eliminate conflicts of interest should not extend to denying contractors the opportunity to work for the regulated industry in other capacities, however, since such a requirement would unrealistically limit the supply of experienced firms available for cleanup work.

Accounting for Achievement: Communicating Progress to the Public

Despite many accomplishments in Superfund in recent years, there is limited public knowledge and acceptance of program accomplishments at a national level. One reason for this is that inadequate attention has been paid to developing, measuring and communicating an accurate, timely and meaningful national picture of Superfund progress that is responsive to the public's concerns. The Task Force encourages EPA to improve public outreach in three ways. First, EPA can listen to and involve Superfund's principal constituencies in program decisions. Second, we can better define program process measures that describe to the public in real and satisfying terms the benefits Superfund is achieving on their behalf. Finally, we can improve our national communication and dissemination of Superfund information.

EPA should immediately convene a series of forums for Superfund's diverse constituencies to begin an ongoing dialogue to address Superfund policy and implementation issues. The preparation of authoritative reports is not the goal of this exercise. Rather, listening to and discussing the concerns of people affected by Superfund are the principal objectives.

EPA can improve its existing management measures to do a better job of communicating information on Superfund's progress. By late 1989, the program should begin collection of data that meets the public's expectations for timely completion of sites, extent of responsible parties' participation in the program and -- most importantly -- indicators of Superfund's environmental results. While having an eye on the ultimate goal of final cleanup that meets health and environment goals, such measures will also reflect progress Superfund makes in moving sites through the various stages in the road to cleanup.

EPA needs to reduce the number of measures used to administer the program, and in particular eliminate the sense that, since everything is a priority, nothing is a priority. Measures should align the entire Agency behind the pursuit of a common goal, not serve as a source of conflicting pressure to complicate internal management of the program.

EPA must face the fact that Superfund is evaluated on how it is perceived by the public as much as on its performance. For that reason, EPA needs to take steps to do a better job in telling its story as fairly and accurately as possible. The Agency must work to eliminate jargon from program

materials and provide journalists and other communicators with appropriate features (such as a "Journalists' Guide to Superfund") to heighten their understanding of the program.

Finally, EPA must realize that good communications are as much a part of the program as cleanup itself. All members of EPA's Superfund staff with the responsibility to represent the program need some training in how to talk to the public and to the press.

THE CHALLENGES AHEAD

The President promised Congress and the American people that he was firmly committed to cleaning up hazardous waste sites: "I'm for an aggressive, no nonsense approach to cleaning up toxic waste dumps, I'm for strengthening enforcement against dumpers, quickening the pace of our cleanups, and streamlining the bureaucracy that sometimes slows them down." This report constitutes the first installment toward fulfilling that promise.

EPA and the Nation have spent the last nine years learning about what a big job Superfund really is, and building a base of experience from which to plan more efficient and effective ways to manage the program and clean up sites. There is no magic wand that I can wave to make this problem go away, but I do intend to use this report as a blueprint to guide the direction of the Superfund program in the months and years ahead.

We will now begin the process of developing a results-oriented plan and schedule for implementing the major recommendations in this report. Though some of them have already been acted upon and many others are now in various stages of completion, a complete schedule and implementation plan for all the recommendations will be prepared by September 1, 1989. These task schedules and timeliness will subsequently be reflected in the work plans of EPA's program managers and supervisors at Headquarters and in the Regions. Of particular importance, this implementation plan will manifest a respect for the deadlines set forth in the 1986 Superfund amendments.

What I am seeking from you today is your understanding and acceptance of the strategy and recommendations presented in this report and freedom to carry them out in a supportive environment. I look forward to working with you and your staff on the enormous challenges facing Superfund in the months and years ahead.

Written Testimony of

William C. Child
Manager, Land Pollution Control Division
Illinois Environmental Protection Agency

Before the
U.S. Senate Subcommittee on
Superfund, Ocean and Water Protection

Concerning
The U.S. Environmental Protection Agency's
Superfund Review

June 15, 1989
Washington, D.C.

Good Morning, Mr. Chairman. I am William Child, Manager of the Land Pollution Control Division of the Illinois Environmental Protection Agency. As such, I am the regulatory manager of all hazardous waste regulatory activities in Illinois, to include remedial actions to clean up sites polluted by hazardous materials. I served as a State member on Administrator Reilly's Superfund Management Review Policy Committee over the last three months where, with other State colleagues, I hope we were able to add the special perspectives of those close to the problems these polluted sites cause to local citizens. I also serve as the President of the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) and have been active in that organization's Superfund efforts for some time. My role in ASTSWMO permits me to be in touch with my peers in other States and has allowed me to become more aware of the intense work of States in hazardous waste remediation and the tremendous potential States have for much greater contributions to the national cleanup effort in the future.

Let me begin by expressing my full support for the recommendations resulting from the Superfund Management Review just described to you by Bill Reilly. This 90 day review was an intense, straightforward effort at dealing with the issues of Superfund implementation from the standpoint of achieving the "possible" under current statutory responsibilities and authorities. I believe it is a sound and candid review of EPA's program management, and

speaking for myself and my State colleagues, I want to commend Bill Reilly for inviting State participation in such an open analysis of his Agency's process. As a State representative, I found this review meaningful as much for what it could not address as for the many practical and meaningful recommendations which were made. Because States are now procedurally involved in only a few phases of current Superfund management, the ability to significantly change the ways States can participate in a more meaningful manner was greatly circumscribed by the limitations of current practice and the current statutory authorities we all could agree upon. Consequently, the management review could barely scratch the surface of this significant relationship between States and Superfund, but it has identified important issues and points the way to address those issues in the near future.

Superfund is a landmark in national policy and represents a watershed in legislative courage and foresight in dealing with a national embarrassment. The Congress acted decisively in the face of heavily entrenched interests, and put the lie to the myth that pollution was the natural byproduct of economic growth and industrial development. The notion that citizens had to tolerate these hidden costs of national progress was finally dispelled and the principal of environmental accountability and responsibility was firmly established. We all owe the Congress a great debt of gratitude for leading the way through this difficult legislative process. I want to assure you that although many of us who are

responsible for the implementation of pollution remediation programs may occasionally be critical of certain procedural and administrative features of the Superfund statute as it has been amended, we have never lost sight of the enormous value of this farsighted and comprehensive legislation. We need this statute and we need it to remain tough and exacting in order to demand the best environmental effort from all of us: government, industry and citizens.

Some of you may be surprised to hear me say that in its fundamental demands I believe Superfund is working, because a flow of cleanups is taking place now that we have begun to work through the initial backlog of site investigations. You may be equally surprised to hear me say that I consider that the EPA execution of many elements of this nationwide effort is generally well run, considering the complex procedural requirements they must meet in that implementation. You will not hear me say that Superfund implementation is as good as it can or ought to be, because we have miles to go before we reach that desired plateau.

However, Bill Reilly has just given you the outline of the first steps he intends to take in improving program implementation, and as statutory reauthorization approaches, other constructive modifications will undoubtedly be proposed. This management review report and its follow-on implementation plan for future actions presents us the opportunity to work together to provide this

program some much needed stability. As a State manager I hope that this resurgent commitment to rigorous execution of Superfund will allow us to avoid the necessity for new statutory deadlines and standards by ensuring better EPA program management and progress.

Superfund is a vital and important program to States. That point is sometimes obscured by the overwhelming federal emphasis of the statute itself and in the manner of centralized program implementation by the EPA. But "endangerment to human health and the environment" is endangerment to citizens of States and to the natural resources of States, and the legitimate demands for action come from the local levels of concerned State residents. While we tend to focus on the National Priorities List (NPL) as the single target of remediation, there are other indicators that hazardous waste site pollution is much more extensive. Currently, the NPL contains nearly 1,200 final and proposed sites, but it is my understanding that EPA's broad CERCLIS inventory of hazardous waste sites and other State reports numbers some 20,000 sites which must be fully evaluated and dealt with. While most probably will not be placed on the NPL, it is clear that all will have to be cleaned up eventually. Right now States are cleaning up those sites that do not make NPL cutoff scores, and States are working with EPA on a number of NPL sites as well. Because of this workload, many State governments have well-developed remediation programs and have the capacity to effectively assess, regulate and clean up polluted sites. They are doing so right now.

In sum, I want to emphasize that I consider the nationwide scale of hazardous waste pollution to be massive, and that I believe it exceeds the likely capacity of the federal government to clean up this widespread pollution with its own exclusive resources. Finally, I think that remediation, whether accomplished through the Superfund or through other site cleanup authorities, is going to be a very long-term national effort.

I would like to address two areas of remediation implementation which I believe provide great potential benefits to national environmental goals. These are the need for stronger enforcement practices and for a much broader mobilization of our national resources for cleanup.

It has been my personal experience, as well as that of many other State waste management officials, that strong, seamless enforcement is the essence of effective cleanup. Every cleanup must start as an enforcement action and be stabilized by a series of negotiation deadlines to keep it from bogging down. By taking that approach, responsible parties are made aware from the beginning that the preferred option of voluntary cleanup is an option only so long as it works. When progress stops, enforcement begins, not as a separate solution which must be brought on line only after negotiations fail, but as an immediate consequence because all the

enforcement tools have been in place from the beginning of negotiations. States have found this to be an efficient and effective enforcement procedure and our Association has recently recommended it to EPA for our mutual use. A copy of that ASTSWMO position is attached as an exhibit to this testimony. EPA is receptive to this concept and we have agreed to pursue discussion of ways to strengthen our cooperation in enforcement activities. States have found this approach to enforcement actually leverages private financing of cleanups and so conserves the trust fund to those instances where there are no viable responsible parties. In my own State of Illinois, 60% of our cleanups are made with private funds and in Minnesota 75% of the hazardous waste site cleanups being conducted are financed by responsible parties with State oversight.

The second area of great potential benefit to the Superfund program, and the one I want to emphasize today, is the mobilization of all national cleanup resources. There are only a few sources of cleanup resources. There are federal employees, largely from EPA; there are State employees in many developed State programs; there are contractors; and there are the responsible parties themselves. I have already spoken about the desirability of obtaining more cleanup work from the responsible parties, although this requires close federal or State supervision of effort. Contractors also require supervision by government regulators, but in addition to that requirement, their work appears to be the most expensive way

to deal with remediation projects. In some cases their special expertise and high technology equipment certainly support such costs, but I believe Congress itself has questioned the value and the effectiveness of many of the contractor efforts on EPA sponsored Superfund projects, so I do not believe this is a very promising area of expansion to meet the national cleanup needs. I support an expanded EPA technical workforce for Superfund remediation work, although I would prefer to see most of that growth at the regional level where the real cleanup work is done. However, I don't consider expansion of the federal workforce to be the only resource solution.

The forgotten asset in this national equation is the State environmental workforce. In part, I suppose this is largely because we have developed those assets in such a low-key fashion, and because we have concentrated on the less notorious non-NPL sites. Consequently, we are somehow perceived as being less sophisticated and technologically capable than others. I do not believe that is true nationwide and I know it is not the case in my own state of Illinois. There is no question that State capabilities are uneven, with some States having large, high-technology programs, while others with fewer problem sites and other pressing environmental priorities have not elected to develop large remediation programs. In a survey of State cleanup funding mechanisms ASTSWMO conducted in June 1988 we found that same wide variation in scale of effort to be striking, but over 40 States had put into place some form of

funding mechanism to assist their remediation activities. I know many people prefer greater symmetry in waste management programs, but I find this pluralism of approach both rational and desirable because it is based on State needs and situations. The real key is that Superfund remediation has national standards which must be met in all cases, and a well resourced, technologically based State remediation program can meet those standards. Only States with sound, proven capabilities and the desire to actively contribute to the national Superfund program should participate in this venture, but States know their levels of skills and will only ask to participate within their established capabilities.

Here my bottom line is very simple -- use the resources of capable and willing States as part of the total national resource base to deal with all remediation problems, whether the site is on the NPL or not. There is simply too much work to be done to waste this resource or to trivialize it by assuming that it must be supervised at a level that really duplicates the regulatory effort at a site. States are ready to play a larger part in this effort, as it is their citizens and resources in need of environmental protection. If States wish to participate, they are also prepared to assume full and equal accountability with their federal counterparts, and to meet some reasonable standards of assessing capability to perform the tasks demanded.

States expect, however, to be treated as equal partners in this

national venture. In the long run, this means some level of delegation of the national program, under carefully thought out and equitable statutory guidelines. We believe CERCLA/SARA reauthorization is the proper vehicle for such delegation and suggest that the Congress encourage EPA to include State delegation authority as an element of their proposals for Superfund reauthorization.

In the short term, I believe many State waste managers consider the concept of deferral, or more precisely "referral", of certain sites to State authority under sound environmental statutes as a viable option from a technical level. We are aware that many believe this to be an undesirable decentralization of a focused federal effort, but we think clear federal standards and effective oversight can provide the management necessary to make a more decentralized approach work effectively.

State waste program directors don't view referrals as second rate cleanups, pitched to lower standards, and undertaken to avoid work or the level of results required under Superfund. Sound cleanup standards are demanded and met under other environmental authorities. There are differences with Superfund procedures, but other cleanup authorities have parallel procedures which protect substantive public and environmental interests. However, plans for making a referral system operative haven't even been outlined, and the discussion has so far centered on the concept raised in the

preamble of the recently proposed National Contingency Plan. States generally supported that concept, but fully recognized that there would be a need for extensive, constructive argument and work to develop equitable and effective referral procedures. Again we view the controlling issue to be the vast scope of remediation work to be accomplished, and we would like to be able to concentrate on that workload. A sound, agreed referral system would provide the basis for early use of more State capabilities, and I believe that we should continue to explore that option aggressively in the hope of achieving procedures we could all agree on and which are permissible under the statutes.

In any case, I want to assure you that States care about Superfund remediation, and want to participate actively and constructively to address the massive scope of long-term cleanup that lies ahead of us. We want to be more active and undertake a greater role in dealing with this national problem. We think that it is time to expand that State role under Superfund, but we know that it is essential that we do so with the full support of Congress and the public. I believe that there is recognition of this need in the Superfund Review Report just submitted, as it notes the need to define States' role and improve their capability in the Chapter on Accelerating and Improving Remedial Action, and, in the final Epilogue chapter, identifies the need to improve the State/federal partnership in both program and enforcement activities. In my introductory remarks I noted that most of these issues of the

State's relationship with Superfund management lay ahead of us, but we are confident that even the short discussion in this excellent report will assist us in keeping that dialogue open and to move it along quickly. I hope we have your support in finding viable, functional ways to enhance State participation.

Thank you for your attention and the opportunity to offer my perspectives as a State waste manager. I would be happy to respond to any questions you may have.

Enclosure to the Testimony of William C. Child, June 15, 1989 —



Association of State and Territorial Solid Waste Management Officials
444 North Capitol Street, N.W. • Washington, D.C. 20001 • 202-624-5828

May 11, 1989

Mr. William K. Reilly
Administrator
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Mr. Reilly:

Enclosed is the Association of State and Territorial Solid Waste Management Officials' (ASTSWMO) position on a "National Superfund Program Strategy -- Getting More Done with Limited Public Funds". This position was adopted by the ASTSWMO Board of Directors at their April 28, 1989 meeting in Washington, D.C.

In November of 1987 the States began working with EPA on an overall strategy for the Superfund Program with emphasis on seeking and securing responsible party commitments (i.e., enforcement). By May of 1988 we had reached agreement on the principal components of a strategy with your predecessor, but unfortunately the effort was never finalized.

We believe EPA needs to integrate its fund-financed and enforcement efforts so one complements the other under a program strategy. This would seek responsible parties commitments in the first instance and only spend fund money when responsible parties are unwilling or unable to commit to investigate and/or cleanup sites. It is our judgement that a Superfund program strategy which relies primarily on federally-funded remedial action and places less emphasis on leveraging responsible parties to conduct cleanup actions runs counter to congressional intent.

The National Superfund Program Strategy must address the fact that there are currently thousands of confirmed hazardous waste non-NPL sites nationwide that require cleanup. Given the magnitude of work which remains to be done on the NPL, as well as at sites that have not yet been listed, or may never be listed, it would be prudent to develop the capacity of States to fully participate as co-implementors of the National Superfund Program Strategy.

This ASTSWMO strategy suggests that EPA work closely with States. EPA can provide tools such as funding to build State enforcement capabilities and the States can provide standardized enforcement approaches as well as agreements. With EPA and the States working

together, we believe the number of enforcement actions would multiply and this would hasten site cleanups.

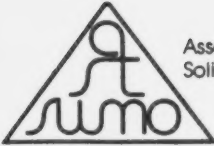
We would like to work with you to resume the very useful dialogue with States concerning cooperative enforcement efforts. I look forward to hearing from you soon on this important subject.

Sincerely,

William C. Child

William C. Child, President
ASTSWMO

cc: Lew Crampton, Special Assistant
to the Administrator



Association of State and Territorial
Solid Waste Management Officials

HALL OF THE STATES
444 North Capitol Street
Washington, D.C. 20001

ASTSWMO POSITION

NATIONAL SUPERFUND PROGRAM STRATEGY GETTING MORE DONE WITH LIMITED PUBLIC FUNDS

INTRODUCTION

The States have been working with EPA on an overall strategy for the Superfund Program with emphasis on seeking and securing responsible party (RP) commitments (i.e. enforcement). These efforts began in November of 1987 and continued through May of 1988. There seemed to be agreement in May on the principal components of a strategy. Thus far the strategy has not been finalized and therefore the elements of the strategy have not been implemented.

This position paper requests that, with assistance from the States, EPA develop a National Superfund Program Strategy. Eventually this strategy should be included in the National Contingency Plan (NCP). The major components that need to be included in this Superfund Program Strategy, and ASTSWMO's position are specified in the following sections.

I. A NATIONAL SUPERFUND STRATEGY

A need exists to develop a National Superfund Program Strategy that has at its core a management system which would apply the statutory elements (i.e., enforcement/fund-financed) of State and Federal Superfund laws in an integrated fashion producing a systematic approach to hazardous waste site cleanups. In addition to NPL sites, the National Strategy must also consider and account for the thousands of non-NPL sites which are confirmed or will be confirmed as requiring cleanup. Finally the National Strategy must be built around the fundamental concept that the Federal Government and the States are co-implementors of the Strategy.

A. Integration of Enforcement and Fund Financed - Leverage the Fund

The National Superfund Program Strategy's major objective must be to conserve the expenditure of public funds by maximizing efforts to secure potential responsible party commitments to conduct or finance Remedial Investigation/Feasibility Studies (RI/FS) and/or Remedial Design/Remedial Action (RD/RA) activities.

This can be accomplished through a management approach that applies the enforcement and fund-financed elements of Super-

fund laws in an integrated fashion whereby fund monies are leveraged to secure responsible parties commitments to cleanup.

The key to accomplishing the above stated objective is the establishment of a program strategy which seeks responsible party commitments in the first instance and spends money when responsible parties are unwilling or unable to commit to investigation and/or cleanup. To implement the strategy requires establishment of procedures that when applied will result in a systematic approach at each and every site. The systematic approach should proceed in accordance with the following.

A PRP search must begin at the same time a preliminary assessment is initiated and should proceed through the site inspection and HRS scoring process. As the PRP search and pre-remedial activities are coming to a conclusion EPA and the State must determine lead agency responsibility and develop a site specific strategy and timeline that sets forth the enforcement activities to be taken in an attempt to secure the responsible parties commitment to conduct an RI/FS and/or RD/RA. This decision point is also the logical time to determine to defer to States, to allow the State to cleanup under its own authorities. When EPA has been determined to be the lead agency, the enforcement activities to be undertaken to secure responsible party commitments in their order are:

- o issuance of general notice
- o issuance of special notice
- o issuance of draft RP commitment agreement with generic scopes of work
- o defined period of negotiations

If an agreement embodying the responsible party commitment is not reached during the defined period of negotiation, the negotiations should close and EPA should issue a unilateral CERCLA Section 106 Order (States with unilateral order authority have been issuing these types of cleanup orders for a number of years), ordering conduct of RI/FS and/or RD/RA which should reflect provisions agreed upon during the unsuccessful negotiations (i.e., agreement reached on a number of technical issues but RPs do not execute a consent agreement). If the RP complies with the 106 Order, EPA should provide oversight of RP cleanup actions. Failure of the RP to comply with the 106 Order must result in a timely decision to either initiate legal action to compel performance or initiate fund-financed action. (See attached flow diagram).

The switch of a site to the fund-financed mode must include the ability of both Fund and staff resources to commence the publicly funded activities without any significant delay.

This requires the EPA funding approach be flexible to allow a site to be funded if negotiations fail. This approach would necessitate that the SCAP include an allocation of funds which did not include specific site names but would be utilized if efforts to secure RP commitments were unsuccessful and/or the RPs do not comply with unilateral 106 Orders. In this way an enforcement site would quickly become a publicly funded site, thus establishing credibility for both State and federal programs.

B. Standardization of Enforcement "Tools"

In order to implement the described National Superfund Program Strategy the States and EPA need to identify specific areas of the program that can benefit from standardization of procedures and documents and define responsibility for their completion. The standardization of key documents will allow more to be done with a given amount of resources. This is especially true in the negotiation of consent agreements or issuance of unilateral 106 Orders where standardization of portions of the document would significantly reduce the time required to negotiate an agreement or issue the order and thus speed the actual remediation of a site.

The standardization of enforcement tools should also include the development of boiler plate language for judicial consent decrees (RD/RA) and consent agreements for both two party and three party situations and the development of generic scopes of work for RI/FS, RD and RA activities. The legal language should be developed by EPA and the States and would have to be accepted by the Department of Justice to be beneficial. The generic scopes of work should be developed to apply to general classes of sites so that not every site would have to proceed at the level of the most complex site. This approach allows for the appropriate level of effort to be expended based on the general environmental concerns that exist at a site.

C. How Clean is Clean

The lack of development of cleanup standards or goals has been a major impediment in achieving a more rapid remediation of hazardous waste sites throughout the country. The ARAR concept is good, but States have looked to EPA for guidance in the development of national standards or models for the establishment of site specific cleanup goals without receiving much meaningful assistance. The National Superfund Program Strategy must include a commitment by EPA to develop, in conjunction with the States, tools to generically answer the question "How Clean is Clean?".

The development of specific cleanup standards or methods to establish cleanup goals for ground water is well under way

and should be vigorously pursued to finalization. In addition, there is a need to standardize the criteria to be used in risk assessments and develop models for determining how much contamination can remain in soils without causing a violation of a ground water standard. The overall goal of developing cleanup standards, models, and criteria should be to assure a consistent approach to the cleanup of hazardous waste sites.

D. Management of the Superfund Program

The National Superfund Program Strategy must address the issue of how the enforcement and fund-financed elements of the program will be managed in order to ensure that the necessary program results are achieved. Program results should be measured by the amount of remedial actions initiated and not the number of enforcement settlements versus fund financed actions. Currently EPA has not developed a systematic and dynamic approach to the Superfund program, where work would begin and end in specified time periods. Instead, the management system seems to focus on certain specific accomplishments by a rigid deadline. A management system must be established that organizes the work and defines when it will realistically be completed and provides rewards when the work is completed on time. To accomplish the enforce first strategy, the management system must set timelines for negotiations with responsible parties and not penalize program managers or States if negotiations are not successful. The objective of enforcement managers must be to complete negotiations as rapidly as possible. Those responsible parties that are willing to do the work themselves would then proceed under an appropriate enforcement agreement. Failed negotiations would quickly be followed by issuance of a unilateral Section 106 Orders and decisions to proceed with fund-financed action or legal action to compel performance. The faster the actual work can begin using the Fund, the greater the incentive for future responsible parties to meet their responsibilities. For fund-financed actions managers must establish when work will be accomplished and be held accountable to complete those tasks. Situations will occur where responsible parties will request to takeover a fund-financed site. The steps in the overall process when this can occur must be specified and the lead changed from fund-financed to RP conduct only after an appropriate enforcement document has been executed. The management strategy must also provide incentives for EPA Regions to actively assist in State-lead enforcement sites that could result in the remediation of sites on a more rapid schedule. Potentially responsible parties are often hesitate to initiate remedial activities required by a State without EPA's concurrence. EPA can expedite remediation by concurring or agreeing to target State-lead enforcement sites for SCAP designation.

II. STATE HAZARDOUS WASTE SITE CLEANUP PROGRAMS

The National Superfund Program Strategy must address the fact that there are currently thousands of confirmed hazardous waste non-NPL sites nationwide that require cleanup.

The sheer magnitude of the problem necessitates that the States and the federal government be co-implementors of the National Superfund Program Strategy.

A. Thousands of Sites and the Deferral Policy

The number of hazardous waste sites is beyond the ability of EPA to cleanup by itself within a reasonable time period under Superfund. Therefore, the States will play the primary regulatory role in cleaning up sites that do not qualify for inclusion on the National Priorities List (NPL), and those sites that can be remediated under State authority without placing the site on the NPL. The latter situation has been recognized in the proposed NCP through several options that would defer to States those sites which would otherwise have been nominated to the NPL. The NPL would thus be utilized for those hazardous waste sites where there is not adequate State resources or authority to insure the proper cleanup of the site. This deferral policy would eliminate the duplication of effort and resources between EPA and State agencies that is currently occurring at many sites. EPA resources would be more efficiently expended on developing standardized "tools" (discussed earlier) from which all States would benefit.

In addition, the deferral strategy allows for a flexible approach to EPA/State cooperation by recognizing that State hazardous waste site cleanup programs have and are developing at different speeds. States with developed Superfund programs would proceed with the cleanups of their sites under their own authorities and utilizing their own resources. These States could use the threat of placing a site on the NPL as leverage in their negotiations with PRPs and seek listing of those sites that cannot be remediated due to the inability to identify responsible parties, or where PRPs are unwilling or unable to conduct the necessary cleanup. In States with less developed hazardous waste site cleanup programs, EPA and the State should create a mechanism for State participation in certain aspects of the program as the State gains more experience in the program. This approach is predicated on an EPA strategy which would maximize every available resource and recognize that States are at different points in the evolution of their Superfund programs. EPA should also recognize the ability of States to respond to Superfund-type problems without having a coextensive Superfund-type law. Often times a State's hazardous waste or water quality or

regulatory agency enabling law is sufficiently broad to cover the release of hazardous substances.

B. Financial Support

The development of State hazardous waste site cleanup programs must be supported by EPA with financial assistance. The current provision of site-specific administrative dollars for State lead fund-financed sites must be expanded to include the availability of federal funds, perhaps through an expanded Core Grant or a block grant program, for State resources to build the basic components of an integrated (i.e., enforcement and fund-financed) program. This would include funding for activities such as potential responsible party searches, development of computer tracking systems, negotiations with PRPs and oversight of RI/FS and RD/RA undertaken by responsible parties.

C. Remedy Selection

The States must have the authority to make remedial decisions at hazardous waste sites, especially State-lead enforcement NPL sites. The ability of States to make these determinations will eliminate duplication of effort, delay, and indecision which is currently paralyzing the Superfund program. The current approach relies on a "shared powers" process which has resulted in duplication of effort between EPA and the States, or worse yet, without the option to select remedies many States simply opt to not become involved at NPL sites in favor of maximizing limited State resources to cleanup non-NPL sites. Any national Superfund strategy which does not recognize State expertise and ability to select site remedies will result in the Superfund program continuing to underperform in the future. Given the volume of work which remains to be done on the NPL, as well as at the thousands of sites which have not yet been listed, or may never be listed, it makes good sense to develop and maximize the capacity of both EPA and the States to make decisions.

Finally, for sites currently listed on the NPL, EPA must explore creative ways to provide assurances to RPs that their commitment and resultant cleanup work, under two party commitment agreements with States, will not be second guessed by EPA.

Adopted by the ASTSWMO Board
of Directors on April 28, 1989

Testimony of
Thomas P. Grumbly
President, Clean Sites Inc.

on

Management Review of the Superfund Program

for the

June 15, 1989, Oversight Hearing of the

Senate Committee on Environment and Public Works
Subcommittee on Superfund, Ocean and Water Protection

I. Introduction

I would like to thank Senator Lautenberg and members of the Subcommittee for inviting Clean Sites to submit testimony for the record on the panel's oversight hearing on the Environmental Protection Agency's Management Review of the Superfund Program.

Clean Sites is a (501)(c)(3) non-profit organization dedicated to the cleanup of hazardous waste. It was formed five years ago, at the request of then EPA Administrator William Ruckelshaus, by a coalition of industry and environmental leaders and former senior government officials. Our chairman, Russell Train, is a former administrator of EPA and is chairman of the Conservation Foundation and World Wildlife Fund.

Clean Sites' primary purpose is to facilitate the cleanup of sites by those responsible for them. In the past five years Clean Sites has assisted responsible parties and/or governments in cleanups at more than 50 sites. We have helped achieve settlement agreements for cleanups or cleanup studies at 20 sites worth a total of more than \$190 million. Clean Sites reviews remedial investigations and feasibility studies, project manages cleanups, and manages more than \$20 million in responsible party cleanup funds. Our public policy and education division enlists experts with diverse points of view for cooperative problem solving and carries out independent research and analysis.

The purpose of this testimony is to endorse a major recommendation of EPA's report, which is to make Superfund an "enforcement-first" program in which companies and others responsible for hazardous waste sites carry out cleanups at all sites where viable parties can be found.

We think the strategy and the 10 enforcement/settlement policies EPA has outlined are outstanding--the challenge now is to carry them out.

I will discuss the new "enforcement-first" strategy and the following recommendations that, we believe, would help the new strategy to succeed by avoiding several potential pitfalls:

- * EPA should galvanize its offices nationwide, by establishing better mechanisms to hold regions accountable to headquarters for carrying out national policies. This will help avoid a slow start or less-than-full implementation of this strategy.
- * EPA should issue enforcement orders strategically to establish quickly an "enforcement threat" by, for example, publicizing the first orders and by strictly following its policy of consistently targeting actions against recalcitrant non-settlers. This will help avoid excessive litigation that may result in "legal gridlock".
- * EPA should collect and make available information on who brought what waste to a site before starting the clock on the negotiations' time limit. This will help avoid the problem of companies not having enough information in time to make a settlement offer before EPA turns to enforcement.

- * EPA must ensure that cleanup studies and cleanups carried out by responsible parties are as protective of health and the environment as work carried out by government and paid for by the fund. This will enable the public to support an enforcement-first strategy.

While our testimony addresses only the issues that are likely to directly affect enforcement/settlement, I would like to to congratulate William K. Reilly and the agency on the entire report. It is a candid and thorough examination of a complex and controversial program. Moreover, it reflects an intelligent synthesis and use of recommendations by scores of the Superfund program's active constituents--Congress, environmentalists, and industry. This alone has the effect of garnering what this program is most in need of--the support of the people.

II. "Enforcement-First" Strategy

Earlier this year, Clean Sites issued a report on Superfund, "Making Superfund Work." Its central recommendation was for EPA to use its enforcement authority more vigorously to force a greater number of cleanups by responsible parties. We were only one among several voices to make that recommendation. The House Appropriations Committee, for example, also argued that if the agency continued to pay for cleanups out of the fund at its then current rate, the \$8.5 billion Superfund trust fund would run out of money before even half the sites on the National Priorities List of 1,173 worst sites had been cleaned.

Clean Sites, therefore, has been convinced that the agency's move toward an enforcement driven Superfund is the strategy that can place the program on a realistic financial footing and is how Congress intended the law to work. Moreover, we think EPA's 10-point plan outlined in the enforcement section of the review aimed at forcing responsible parties to clean up sites is excellent.

We agree completely with EPA's assessment that, "The most important role of Section 106 orders is to create an enforcement threshold for the program and thereby encourage voluntary private party participation in the settlement process."

We fully agree that to make companies realize they must step forward, the agency must use its enforcement powers by, as the review says, "routinely" issuing cleanup orders to PRPs who are legally liable and financially viable if settlement is not reached after the completion of negotiations.

Translating that into an institutional mandate, the review recommended and Administrator Reilly has accepted as a matter of policy that, "Before fund-financed response can proceed at a site, a region must issue an administrative order, or provide justification for its decision not to issue an order."

We recommend that EPA Administrator Reilly assign his deputy to ensure that appropriate justifications are issued by EPA regions in all cases in which a cleanup order has not been issued and where a fund-financed cleanup has been approved.

We also recommend that states adopt an "enforcement first" approach as the federal EPA has. Without state and federal coordination the national cleanup effort will be running on only half the necessary energy. Some states are already headed in this direction. Minnesota, in particular, has been very successful in working with responsible parties to achieve cleanup.

The remainder of this testimony will suggest ways for EPA to make its 10-point enforcement/settlement plan work and for states to make an enforcement strategy work.

III. A. Galvanizing the Entire Agency and other Federal Agencies with Superfund Authority

It is essential that the EPA make the transition to an enforcement program quickly, before the fund is so seriously depleted that it will not be available to work in tandem with the enforcement approach and will not be available to provide the backup needed to make the enforcement approach work.

Since enforcement actions are issued by the regions, the program depends on these offices to shift as quickly as possible from fund-financed to PRP-financed cleanups.

Yet, the report does not seek to establish a mechanism to assure adherence to the lines of authority between headquarters

and the regions, which historically has been weak. That weakness has translated into substantial uncertainty about authority and action at the operating levels. For example, a number of Superfund policies issued by headquarters have not been implemented in the past, most notably those related to bringing enforcement actions against non-settlers and encouraging settlements. One hears repeatedly of two kinds of problems: that regional decisions are endlessly reviewed by numerous headquarters' offices and that regional offices ignore headquarter's guidance and make whatever decisions they want.

Previously, regional offices attributed part of the problem to the fact that they felt they had been receiving conflicting messages from headquarters--to move head full-steam with both fund-financed and responsible-party cleanups. To the degree that was the problem, this strategy should alleviate it.

To rectify other causes of the problem, we recommend that the relationship between regional administrators and headquarters be strengthened and clarified. EPA should continue to delegate authority to the regions for individual decisions at specific sites, but must hold regions accountable for carrying out policies set by headquarters.

Moreover, with increased delegation to the regions of site decision-making authority, it is essential that there be some form of limited, expedited appeals process for individual decisions at specific sites for responsible parties and citizens

to EPA headquarters. Its purpose would be to address inconsistencies among the regions and any major factual or procedural errors that may have an impact on a settlement--or site cleanup.

We also endorse EPA's idea to create a senior position--dedicated to prompt resolution of enforcement or settlement issues among regions, the Department of Justice, and headquarters.

IV. Strategic Use of Enforcement Authority

Again, Clean Sites wholeheartedly supports EPA taking a greater number of enforcement actions to achieve cleanup. We also agree that the orders and follow-up judicial actions must be used primarily as incentives to settlement. This is true because if every single cleanup relied on compliance with a unilateral administrative order or court order, the result might be an unacceptable slowdown in cleanup.

The near-term goal should be to quickly establish the threat that EPA will take actions against all recalcitrant non-settlers. EPA and the Department of Justice must put the management of companies responsible for hazardous waste sites on notice that it is no longer in their economic interest to delay paying for cleanup.

We recommend that EPA coordinate among the regions the first batch of "routine" orders that are issued and call a national press conference to announce them and the kickoff of the new enforcement policy. We think EPA then should continue a nationally coordinated effort to publicize its Superfund enforcement actions.

We recommend EPA and the states establish a predictable pattern by consistently targeting enforcement actions against recalcitrants who fail to join settlement agreements.

In some cases, EPA should issue draft Section 106 orders to each responsible party, setting the ground rules that the draft orders would turn into final orders within a time certain for those who fail to reach a settlement agreement with the government. States could use a similar approach using administrative orders.

In some cases, EPA and states should carve out a portion of a cleanup for settlers and a portion for non-settlers. Make the non-settlers pay a proportionally greater amount of the costs and issue the unilateral order to the non-settlers at the same time the administrative order on consent or consent agreement is issued.

The agency should also make greater use of mixed funding, which allows settlers to pay for a portion of the costs, while EPA sues non-settlers for their share plus a premium.

To boost the use of mixed funding, Clean Sites urges EPA to push ahead with its plan to give regions incentives, such as additional FTEs, to use mixed funding and other congressionally sanctioned aids to settlement, such as de minimis buyouts and non-binding allocations of responsibility (NBARS). These require additional resources, but fewer than would litigation.

Responsible parties are less likely to turn to litigation rather than settlement if EPA continues to issue notice letters to any newly found responsible parties.

We, therefore, recommend that EPA continue the process of bringing suspected responsible parties into a settlement as they are discovered.

We also recommend that EPA make an investment in improving the negotiating skills of regional personnel assigned to enforcement/settlements.

IV. Make Information on Responsibility and Cleanup Costs Available to PRPs, Make the Negotiation Process Fit the Site Situation

We have found that a major impediment to settlement for responsible parties is their lack of information about other parties' wastes, and the costs of cleanup.

The agency should routinely provide individual responsible parties at the start of negotiations with the names of other responsible parties at a site and the amount of waste each is suspected of having brought to the site. Freedom of Information requests should not be required.

We recommend that EPA boost the region's capability to search for responsible parties and to create waste-in lists.

We recommend that EPA seek PRPs' cooperation in finding other PRPs that may have used a site.

In setting time limits for negotiations, we recommend that the agency be flexible in trying to match the situation to the time limit, i.e., a negotiation with one party and one issue should be given less time to negotiate than a settlement with scores of parties and scores of issues.

Lawyers for responsible companies often need to give their clients an approximate cost of cleanup before the companies will agree to pay for the cleanups under a settlement agreement.

To address this need, we recommend that where possible the agency divide a cleanup into units and negotiate settlements for each unit. That way, parties can organize themselves and begin a five to 20 year cleanup by agreeing, first, to pay for the less expensive work, such as the cleanup study, when the costs are

unknown. This allows them to negotiate for multi-million dollar remedial actions in a separate settlement(s) after the record of decision has been issued and when at least a range for the costs are known.

We also recommend that EPA give responsible parties its estimates for the costs of a cleanup or unit of cleanup.

V. Ensure Quality, Protectiveness of Work by Responsible Parties

One of EPA's recommendations is to try to promote closer oversight of responsible parties conducting remedial investigations/feasibility studies. We think this is key to the success of an "enforcement-first" strategist-the public must be able to trust that fund-financed and PRP-conducted work is equally protective.

We agree that EPA should assign the more experienced regional project managers to oversee studies conducted by PRPs and reduce their workload.

In addition, EPA should consider assigning two-person teams to cleanup studies. While this may initially complicate communications, it could alleviate several problems. One of the problems is the effect of the turnover of regional project managers (RPMs). When RPM turnover occurs during the course of the study, the new RPM is at a disadvantage in dealing with the

PRP contractor mid-way through the project. On the PRP side, when an RPM leaves the PRP contractor mid-way through a project, it causes months of costly delay in the review cycle. The team approach would ameliorate both problems.

Another advantage of the team approach is that it would allow the agency to pair an experienced with a less experienced RPM, which would give the agency more "weight" in dealing with PRP contractors and provide on-the-job training for the less experienced RPM.

We also recommend that the career path for site managers be reexamined to attract and hold senior experienced RPMs. Perhaps EPA could establish a promotion ladder for technical personnel that is similar to management's, allowing technical personnel to increase in rank and salary commensurate with management.

And to ensure the quality of cleanup studies conducted by PRPs, we recommend that EPA improve its procedures for identifying and approving applicable and relevant and appropriate standards (ARARS). EPA's guidance calls for PRP contractors to identify ARARS at several points in both the RI and FS. But in practice the ARARS often are not identified until the end of the feasibility study. Moreover, if the PRP contractor does identify an ARAR at an earlier stage, the agency may not approve or disapprove it until the end of the feasibility study.

The current process pushes the question of what is an ARAR to the end of the RI/FS process, resulting prolonged negotiations with PRPs that delay cleanup. It places the PRPs in a position of expending time and money to pursue a course of cleanup that the agency may not agree, and the agency in the position of trying to change that position.

We recommend that PRP contractors identify ARARs as early as possible. As they are identified, EPA should approve or disapprove them. Discussions with PRPs over ARARs should occur within a specific timeframe, after which EPA should make final decisions expeditiously.

I. Summary

This testimony has attempted to address two specific needs: (1) to get EPA's recommendations off to a fast and smooth start and (2) to take steps that will allow the public to support a program that depends on cleanup studies and cleanups carried out by responsible parties.

EPA has set for itself an impressive agenda. Its task, while clearly a major challenge, is achievable. The result should be the agency's ability to leverage the cleanup fund and greatly increase the amount of cleanup that can be undertaken in the next two years.

